Summary Proceedings

of the

Thirty-second Meeting of the Indian Central Cotton Committee, Bombay,

held on the

13th and 14th January 1936.

APPENDICES.

Present.

Sir Bryce C. Burt, Kt., C.I.E., M.B.E., I.A.S. (*President*), Acting Vice-Chairman, Imperial Council of Agricultural Research,

Sir Purshotamdas Thakurdas, Kt., C.I.E., M.B.E. (*Vice-President*), Representative of the East India Cotton Association, Bombay,

Dr. F. J. F. Shaw, D.Sc., A.R.C.S., Agricultural Expert, Imperial Council of Agricultural Research,

M. R. Ry. Rao Bahadur D. Ananda Rao Garu, I.A.S., Director of Agriculture, Representative of the Agricultural Department, Madras Presidency,

Dr. W. Burns, D.Sc., I.A.S., Director of Agriculture, Representative of the Agricultural Department, Bombay Presidency,

Mr. J. H. Ritchie, I.A.S., Director of Agriculture, Representative of the Agricultural Department, United Provinces,

Mr. H. R. Stewart, I.A.S., Director of Agriculture, Representative of the Agricultural Department, Punjab,

Mr. J. C. McDougall, I.A.S., Offg. Director of Agriculture, Representative of the Agricultural Department, Central Provinces,

Mr. S. D. Saklatvala, M.L.C., Representative of the Bombay Millowners' Association,

Mr. A. A. Sarantides, Representative of the Bombay Chamber of Commerce,

Chunilal B. Mehta, Esq., Representative of the Indian Merchants' Chamber, Bombay,

G. C. R. Coleridge, Esq., Representative of the Karachi Chamber of Commerce,

Seth Sakarlal Balabhai, M.L.C., Representative of the Ahmedabad Millowners' Association,

J. Vonesch, Esq., Representative of the Tuticorin Chamber of Commerce,

W. Roberts, Esq., C.I.E., Representative of the Empire Cotton Growing Corporation,

Y. G. Deshpande, Esq., Commercial Representative, Central Provinces.

Rao Bahadur G. R. Kothare, M.L.C., Commercial Representative, Central Provinces,

Khan Bahadur Sardar Habibullah, M.L.C., Commercial Representative, Punjab,

Rao Bahadur M. G. Despande, C.B.E., Co-operative Banking Representative,

M. R. Ry. Rao Bahadur B. P. Sesha Reddi Garu, M.L.C., Representative of cotton growers, Madras,

Sardar Rao Bahadur Bhimbhai Ranchodji Naik, M.L.C., Representative of cotton growers, Bombay Presidency,

Rao Bahadur C. S. Shirahatti, Representative of cotton growers, Bombay Presidency,

Rai Bahadur Lala Anand Sarup, M.L.C., Representative of cotton growers, United Provinces,

Sardar Sampuran Singh, M.L.C., Representative of cotton growers, Punjab,

Mian Nurullah, M.L.C., Representative of cotton growers, Punjab,

N. M. Deshmukh, Esq., Representative of cotton growers, Central Provinces and Berar,

J. B. Desmukh, Esq., Representative of cotton growers, Central Provinces and Berar,

Nizam-ud-Din Hyder, Esq., Director of Agriculture, Representative of the Hyderabad State,

R. G. Allan, Esq., C.I.E., Director of Agriculture, Representative of the Baroda State,

H. H. Pandya, Esq., Director of Agriculture, Representative of the Gwalior State,

F. K. Jackson, Esq., Director, Institute of Plant Industry, Indore, Representative of Rajputana and Central India States,

Rao Bahadur S. S. Salimath, Deputy Director of Agriculture, Southern Division, Dharwar,

Dr. V. K. Badami, Ph.D., Representative of the Mysore State,

W. J. Jenkins, Esq., I.A.S., Chief Agricultural Officer in Sind,

Seth Isserdas Varindmal, Representative of the Indian Merchants' Association, Karachi,

P. B. Richards, Esq., I.A.S., Entomologist to Government, United Provinces,

Khan Bahadur Nawab Fazl-i-Ali Khan, Chairman, District Board and President, Central Co-operative Bank, Ltd., Gujrat, Punjab,

Khan Saheb Farrukhbeg Sadikalibeg Mirza, Nawabshah, Sind,

Lala Shri Ram, Representative of Cotton Millowners of Delhi,

Chellaram Shewaram, Esq., Representative of the Karachi Cotton Association, Ltd.

The Secretary (P. H. Rama Reddi, Esq., I.A.S.),

The Director, Technological Laboratory (Dr. Nazir Ahmad), and The Publicity Officer (R. D. Mihra, Esq.).

By invitation.

Sir Richard H. Jackson, Chairman, Lancashire Indian Cotton Committee,

The Hon'ble Khan Bahadur D. B. Cooper, J.P., Member for Revenue and Finance, Government of Bombay,

The Hon'ble Dewan Bahadur S. T. Kambli, J.P., Minister for Agriculture, Government of Bombay,

C. G. Freke, Esq., I.C.S., Secretary to the Government of Bombay, Finance Department,

N. C. Mehta, Esq., I.C.S., Secretary, Imperial Council of Agricultural Research,

N. Brodie, Esq., Director, Industrial Intelligence and Research Bureau, Indian Stores Department,

W. D. M. Clarke, Esq., His Majesty's Trade Commissioner at Bombay,

H. C. Short, Esq., Cotton Commissioner, Lancashire Indian Cotton Committee,

C. B. Bramble, Esq., M.L.C., C/o Messrs. Drennan & Co., Bombay,

E. Neuenhofer, Esq., C/o Messrs. Volkart Bros , Bombay,

Mazhar Husain, Esq., Director of Statistics, H. E. H. the Nizam's Government, Hyderabad, Deccan,

R. G. Saraiya, Esq., C/o Messrs. Narandas Rajaram & Co., Bombay,

Rai Saheb Kalidas Sawhney, Cotton Research Botanist, Parbhani,

J. B. Hutchinson, Esq., Geneticist and Botanist, Institute of Plant Industry, Indore,

Prof. R. H. Dastur, Plant Physiologist, Agricultural College, Lyallpur,

Mohammad Afzal, Esq., Cotton Research Botanist, Lyallpur,

K. V Joshi, Esq., Deputy Director of Agriculture, Nasik,

S. V. Shevde, Cotton Superintendent, Banilla Cotton Seed Distribution and Extension Scheme, Amalner,

G. S. Kurpad, Esq., Deputy Director of Agriculture, H. E H. the Nizam's Dominions, Raichur,

G. R Ambekar, Esq , Provincial Officer in Charge, Cotton Forecast Improvement Scheme, Bombay.

Letters and telegrams were received from the following members regretting their inability to attend the meeting —

F. D. Odell, Esq , I.A S., Deputy Director of Agriculture, Representative of the Agricultural Department, Burma,

The Director-General of Commercial Intelligence and Statistics,

J. Tinker, Esq , Representative of the Upper India Chamber of Commerce,

J. Nuttal, Esq , Commercial Representative, Madras,

Akhil Bandhu Guha, Esq , Commercial Representative, Bengal,

K. S. Ramaswami Gounder, Esq., Representative of cotton growers, Madras,

D. N. Mahta, Esq., Economic Botanist for Cotton, Central Provinces,

M. R. Ry. V. Ramanatha Ayyar, Avargal, Cotton Specialist, Coimbatore.

President's Speech.

GENTLEMEN,

It is my privilege to welcome you to the thirty-second meeting of the Indian Central Cotton Committee.

We miss the familiar figure in the Presidential Chair of Dewan Bahadur Sir T. Vijayaraghavacharya who, for six years, conducted our meetings in his own inimitable manner and to whose services to the Committee you testified in such unmistakable terms at our last meeting. You will therefore be gratified to hear that though Sir Vijayaraghavacharya will no longer preside at our meetings, we shall not be deprived of the benefit of his wide knowledge and experience as the Government of India have appointed him an additional member of the Committee.

You will desire me to extend a most cordial welc to is-tinguished guests, especially to Sir Richard Jac the Lancashire Indian Cotton Committee, who,

making a tour of this country on behalf of that body. We are all familiar with the very valuable work which the Lancashire Indian Cotton Committee is doing to popularise Indian cottons in Lancashire and I am not betraying any secret in saying that much of the credit for the achievements of that Committee is due to Sir Richard Jackson himself. His second visit to this country within two years is ample testimony of his desire to further the interests of India. We, on our part, hope that he will find that considerable further improvement has been effected in the quality of Indian cotton since his last visit and that the task of his Committee has been correspondingly lightened. As we hope to hear from Sir Richard a good deal about the work of his Committee, I will only add that not only have the exports of Indian cotton to England and the consumption of Indian cotton in Lancashire shown an encouraging increase, but there are definite indications that the demand for our cottons is on a broader basis as a result of the Lancashire Committee's efforts to find new users, and new uses, for Indian cotton. We are also glad to welcome the Hon'ble Khan Bahadur Cooper, Finance Member, the Hon'ble Dewan Bahadur S. T. Kambli, Minister for Agriculture, and Mr. Freke, Finance Secretary to the Bombay Government. To Mr. H. C. Short, the Lancashire Indian Cotton Committee's Commissioner in India, Mr. N. Brodie, Director of the Industrial Research and Intelligence Bureau of the Government of India, Mr. W. D. M. Clarke, His Majesty's Trade Commissioner at Bombay, and Mr. N. C. Mehta, Secretary of the Imperial Council of Agricultural Research, I also extend a hearty welcome.

We were all gratified to learn that our first President Mr. S. Milligan, has recently been honoured with the title of C.B.E. We offer him our heartiest congratulations. Though it is over a decade since he retired from India, he continues to take a keen interest in our work.

We also offer our hearty congratulations to Mr. R. G. Allan on whom the honour of C.I.E. has just been conferred, and to Khan Bahadur Afzal Husain who is in charge of three of our research schemes.

It is also a pleasure to congratulate Mr. Chunilal B. Mehta on his appointment to the high office of Sheriff of Bombay for we all know that he will fill his new office with distinction.

Turning now to our agenda, we must all feel gratified that the Bombay Cotton Control Act, which has for its object the elimination of Goghari cotton from the important long staple cotton areas of the Bombay Presidency, has now passed into law. This Bill was before us at our last meeting and the celerity with which it passed through all stages in the Legislature shows that the need for it was thoroughly appreciated by the public. This piece of legislation will undoubtedly go a long way towards improving the quality of the cotton of the Surat tract. It is a necessary corollary to the intensive work of the Bombay Agricultural Department in that area which the Committee has financed to a considerable extent.

Considerable progress has been made in another very important matter, viz., the suppression of malpractices in cotton ginning and pressing factories through a system of licenses. Both the Bombay and the Central Provinces Governments have introduced, in their respective Legislative Councils, Bills to amend the Cotton Ginning and Pressing Factories Act in which provision has been made for the

imposition of fines and, where necessary, the suspension or cancellation of the licenses of factories found guilty of malpractices. There is abundant evidence that further action in this direction was urgently needed The Bills, in the form recommended by the Committee, impose no hardship on the honest trader or factory owner. The Bombay Council has referred the Bill to a Select Committee, whilst the Central Provinces Bill has been circulated for eliciting public opinion. In the interests of Indian cotton we trust that both measures will shortly take their place on the statute book.

The subject of "Cotton Options" again figures on our agenda in accordance with the decision arrived at at our last meeting. I will not attempt to anticipate the discussion on this most important subject, but I have no doubt that the question has engaged your close attention since we last met and that we shall now be able to reach definite conclusions.

You will remember that at our meeting in February 1935 we came to the conclusion that complaints arising abroad regarding faults in Indian cotton were occasionally exaggerated because India was not adequately represented at important International Cotton Congresses It was decided that the Committee should endeavour to arrange for better Indian representation on the International Federation of Master Cotton Spinners' and Manufacturers' Associations, as we were convinced that at all such discussions India should be represented by qualified and properly instructed representatives who could speak with knowledge and authority on present-day conditions. This will now be possible as the Indian Central Cotton Committee has been made an Associate Member of the International Federation.

Besides the budgets with which our cold weather meetings are usually associated, you will be called upon to consider the reports of the Standing Finance Sub-Committee, the Agricultural Research Sub-Committee, the Technological Research Sub-Committee, the Cotton Forecast Improvement Sub-Committee and the Special Sub-Committee on Wider Markets for Indian cotton. These reports are the outcome of solid work by the members of the various Sub-Committees and I am sure you will desire me to thank them warmly for the very valuable assistance they have rendered us in the detailed examination of the subjects remitted to them. In particular, our Finance and Local Sub-Committees, which consist mainly of Bombay members, have again given freely of their time and abilities to further our work.

Gentlemen, I shall not delay you any longer from the work before you."

Before taking up the subjects on the agenda the meeting carried with acclamation a resolution moved by the *Vice-President* expressing great satisfaction at the conferment of a Knighthood on the acting President and tendering cordial congratulations to Sir Bryce Burt on the high honour conferred on him. The mover and those who spoke in support of his resolution paid tributes to the varied services of Sir Bryce Burt to the Committee.

SUBJECT 2.—*Confirmation of Minutes.*

The Minutes of the previous meeting were then confirmed.

SUBJECT 3.—*Retirement of members by rotation.*

The Secretary's note relating to retirement of members by rotation was recorded.

SUBJECT 4.—*Appointment of Vice-President and Sub-Committees.*

Sir Purshotamdas Thakurdas was re-elected Vice-President for the year 1936-37 and the following Sub-Committees were formed :—

Standing Finance Sub-Committee for the Financial Year 1936-37.

The President (ex-officio),
Sir Purshotamdas Thakurdas,
Mr. S. D. Saklatvala,
Mr. J. Vonesch,
Mr. Chunilal B. Mehta,
Mr. G. C. R. Coleridge,
Mr. A. A. Sarantides,
Rao Bahadur G. R. Kothare, and
Sardar Rao Bahadur Bhimbhai Ranchodji Naik.

Cotton Ginning and Pressing Factories Sub-Committee.

Sir Purshotamdas Thakurdas,
Mr. S. D. Saklatvala,
Mr. A. A. Sarantides,
Mr. J. Vonesch,
Mr. Chunilal B. Mehta,
Mr. G. C. R. Coleridge,
Mr. J. Nuttall,
Mr. W. Roberts,
Mr. J. Tinker,
Mr. Y. G. Deshpande,
The Co-operative Representative—Rao Bahadur M. G. Deshpande (ex-officio),
Mr. Chellaram Shewaram (co-opted member).

The Local Sub-Committee.

The President,
Sir Purshotamdas Thakurdas,
Mr. S. D. Saklatvala,
Sardar Rao Bahadur Bhimbhai Ranchodji Naik,

Mr. J. Vonesch,
Mr. A. A. Sarantides,
Mr. Chunilal B. Mehta,
Mr. G. C. R. Coleridge,
Rao Bahadur G. R. Kothare.

The Agricultural Research Sub-Committee.

I. The President (ex-officio),

II. The Vice-President (ex-officio),

III. The Director, Institute of Plant Industry, Indore—Mr. F. K. Jackson (ex-officio),

IV. The Co-operative Representative—Rao Bahadur M. G. Deshpande (ex-officio),

V. Cotton Growers' Representatives—
Mr. W. Roberts,
Mr. N. M. Deshmukh,

VI. Cotton Trade Representatives—
Rao Bahadur G. R. Kothare,
Mr. Chunilal B. Mehta,

VII. Agricultural Officers—
Dr. W. Burns,
Mr. J. H. Ritchie,
Mr. H. R. Stewart,
Mr. V. Ramanatha Ayyar,
Dr. F. J. F. Shaw,
Mr. R. G. Allan,
Mr. W. J. Jenkins,
Rao Bahadur D. Ananda Rao Garu.
Mr. D. N. Mahta,
Mr. P. B. Richards,
Mr. J. C. McDougall,
Mr. Nizam-ud-Din Hyder.
Mr. H. H. Pandya.
Dr. V. K. Badami.

VIII. Additional Members—
Mr. Mohammad Afzal.
Rai Saheb Kalidas Sawhney.
Mr. J. B. Hutchinson.
Mian Nurullah, and
Mr. Chellaram Shewaram

IX. The Secretary

The Technological Research Sub-Committee.

The President (ex-officio),
Sir Purshotamdas Thakurdas,
Mr. S. D. Saklatvala,
Mr. A. A. Sarantides,
Dr. W. Burns,
Dr. F. J. F. Shaw,
Mr. H. R. Stewart,
Mr. Chunilal B. Mehta,
Mr. Y. G. Deshpande,
Seth Sakarlal Balabhai,
Rao Bahadur D. Ananda Rao Garu,
Lala Shri Ram,
Mr. J. Tinker,
Mr. N. Brodie,
Dr. Nazir Ahmad,

Co-opted Members:—Two representatives each from—
The Bombay Millowners' Association,
The Ahmedabad Millowners' Association and
The East India Cotton Association, Bombay, and
One representative from the Karachi Cotton Association, Ltd.

The Research Students' Selection Sub-Committee.

The President,
The Vice-President,
Dr. F. J. F. Shaw,
Dr. W. Burns,
Mr. P. B. Richards,
Mr. H. R. Stewart,
Mr. J. H. Ritchie,
Rao Bahadur D. Ananda Rao Garu.
Mr. W. J. Jenkins,
Mr. F. K. Jackson,
Mr. J. C. McDougall,
Mr. H. H. Pandya,
Mr. R. G. Allan,
Mr. Nizam-ud-Din Hyder.
Dr. V. K. Badami and
Dr. Nazir Ahmad

The Cotton Forecast Improvement Sub-Committee.

The President,
The Director-General of Commercial Intelligence and Statistics,
The Director of Agriculture, Bombay Presidency,
The Director of Agriculture, Punjab,
The Director of Agriculture, Madras,
The Director of Agriculture, United Provinces,
The Director of Agriculture, Central Provinces,
The Director of Agriculture, Baroda,
The Director of Agriculture, H. E. H. the Nizam's Government,
The Chief Agricultural Officer in Sind,
The Director of Statistics, H. E. H. the Nizam s Government.
The Director of Land Records, Central Provinces and Berar,
The Deputy Director of Statistics,
The Statistical Officer, Madras Board of Revenue,
The Agricultural Expert to the Imperial Council of Agricultural Research, and
Trade representative—Mr. J. Vonesch.

The Special Sub-Committee to consider the question of a wider market for Indian cotton.

The President,
The Vice-President,
Dr. F. J. F. Shaw,
Mr. H. R. Stewart,
Mr. J. H. Ritchie,
Dr. W. Burns,
Mr. W. J. Jenkins,
Mr. Nizam-ud-Din Hyder.
Mr. S. D. Saklatvala,
Mr. J. Vonesch,
Mr. Chunilal B. Mehta.
Mr. V. G. Deshpande,
Khan Bahadur Sardar Habibullah,
Sardar Rao Bahadur Bhimbhai Ranchodji Naik,
Rao Bahadur D. Ananda Rao Garu,
Mr. J. C. McDougall,
Mr. R. G. Saraiya, } Co-opted Members.
Mr. Kasturbhai Lalbhai, }
Seth Isserdas Varindmal.

The Malpractices Sub-Committee was agreed to be discontinued.

SUBJECT 5.—*Representation of the Indian Central Cotton Committee on the International Federation of Master Cotton Spinners' and Manufacturers' Associations.*

The President announced that a satisfactory arrangement had been arrived at with the International Federation with which the Committee was now definitely associated as an Associate Member. The Committee would receive the agenda and proceedings of the Federation meetings and would thus have an opportunity of properly instructing its representatives whenever questions concerning Indian cotton came up for consideration. This arrangement should ensure that India's case would not go by default in future.

SUBJECT 6.—*Establishment of regulated cotton markets.*

Only one point was discussed under this head, namely, that although the Central Provinces Cotton Market Act had been passed in 1932 out of about 17 important markets only one appeared to have been notified under the new Act.

Three chief reasons were given to explain this circumstance.

1. The establishment of such markets had been left entirely to the initiative of local bodies or the growers of cotton under the Act but as no application had been received from either, Section 4 of the Act was being amended to enable Government to establish such markets on their own initiative. The failure to establish markets was also due to a certain extent to apathy among some local bodies and in other cases to their active opposition.

2. Owing to the continuous failure of the cotton crop during the last four years, the income from cotton markets had been very much reduced.

3. It had been reported to the Government of the Central Provinces that the volume of cotton dealt in some places in the province was not large enough to justify the formation of separate markets for cotton alone and it had accordingly been proposed that an enabling amendment should be made in the Central Provinces Cotton Markets Act to provide for joint cotton and grain markets wherever conditions were not favourable for the establishment of separate cotton and grain markets. This question was under the consideration of Government.

The Committee expressed the hope that if any substantial alteration was being proposed in the Central Provinces Cotton Market rules the Committee would be given an opportunity of expressing its opinion.

The Director of Agriculture, Central Provinces, said he would bring the point to the notice of his Government.

It was noted that under the Madras Commercial Crops Market Act a cotton market had been started at Tirupur as an experiment but as soon as more experience was gained, the Act would be extended to other areas.

SUBJECT 7.—*Bombay Cotton Control Act*, 1935.*

It was resolved that

RESOLUTION—"The Indian Central Cotton Committee notes with satisfaction the expeditious manner in which the Bombay Cotton Control Act was passed by the Legislative Council. It is confident that this piece of legislation will go a long way towards improving the quality of cotton of the Surat tract where Goghari has been spreading to an alarming extent and that the benefits to the grower expected from the Act will soon be realised."

Speakers commented on the easy and pleasant passage of the Bill through the Legislative Council and the hope was expressed that the working of the Act would be equally peaceful.

This was the second instance, the first one being in Madras, of a measure taken up at the instance of the Indian Central Cotton Committee to restrict the growing of a particular variety of cotton in the interests of the majority of cultivators.

When some members of the Bombay Legislative Council expressed the view that this Act curtailed the liberty of the agriculturists it was explained that the liberty of a few growers had been taken away in their interests and of the general body of cultivators. If the Act did any harm to anybody it was only to those ginowners who mixed the two cottons—Goghari and Navsari—and not the cultivators.

SUBJECT 8.—*The Cotton Ginning and Pressing Factories Act.*†
(a) *Bombay Amendment Bill.*
(b) *Central Provinces Amendment Bill.*

Discussion ranged over three kinds of malpractices which these Bills proposed to tackle, namely, watering, excessive seed and the presence of foreign substances. The difference between the two Bills with regard to mixing also came under examination.

The essential difference was stated to be that under the Bombay Bill mixing could be prohibited only in prescribed areas whereas under the Central Provinces Bill mixing was to be permitted anywhere provided a bale containing mixed cotton was marked as such. On this point the Local Sub-Committee had suggested that the Central Provinces Government should follow the Bombay Bill.

On behalf of the Central Provinces measure it was explained that in its present form it had been circulated for opinion but that considerable changes would presumably be made in it at the time of final drafting.

The provision in the Central Provinces Bill relating to mixing and also absence of definition of mixing were severely commented on. It was declared by more speakers to be absurd that an Act which was made to prevent mixing should allow mixing provided that fact was indicated on the outside of the bale. An Act which was intended to prevent mixing must prevent it no matter what the difficulties were.

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* Appendix I (page 42). † Appendix II (page 45).

Some of the difficulties of gauging the extent to which mixing took place were dwelt upon by others. No scientific method had been evolved so far to determine the exact proportion of mixtures in any given sample. Cotton consisted of innumerable varieties and even in pure cotton of the same variety there were differences in price of Rs. 10, 20 and 30 per *khandy*.

As regards fixing the responsibility for mixtures it was urged that as long as no special area had been reserved for growing a particular kind of cotton there should be no penalty for mixtures. In the Central Provinces every cotton field contained some admixture which was not intentional. The cotton which went to the bazar however always contained mixtures of several kinds of cotton and owing to the wide spread of verum seed such cotton was a mixture of verum and old types. Merchants, therefore, found it very difficult to distinguish and separate one cotton from another in their bazar purchases. The factory owner and merchants should not therefore be penalised in these circumstances and unless the mixer of the cotton were traced, which would be very difficult, innocent parties might be penalised. A Bill prohibiting mixtures in present circumstances would kill the trade. It was therefore suggested that such a clause should be applied only to particular areas reserved for particular kinds of cotton.

As regards watering, except one speaker all were agreed that the cultivator was not responsible for this evil. If watering accidently took place, an allowance was made by the merchant there and then.. It was mentioned that one firm at Nagpur bought from cultivators hundreds of cart-loads of *kapas* for its mills but scarcely ever was *kapas* found to be watered or wet. But when on the same day they bought "ready" *bojhas* of ginned cotton they had to pay only say Rs. 97 or 98 per *bojha* whilst the cotton purchased as *kapas* cost Rs. 101 or 102. The difference of Rs. 4 or 5 per bale was found on investigation to be merely due to the fact that the ginned cotton they bought was watered. The merchant could not possibly have been able to sell at that price unless he depended on the weight of water in the cotton.

The extreme limit of watering reached was that in a *khandy* of 784 lbs. of cotton as much as 160 lbs. of water had been put.

A leading cotton merchant in Bombay had stated that he had seen a hose played on heaps of ginned cotton for three hours and that this was the second application of the hose.

The greatest complaint against watering was that it played havoc with cotton, as such cotton had to be sold as soon as it reached Bombay irrespective of whether it was near the market price or not and whoever bought this cotton and kept it in his godown for four or six months would soon find to his cost what colour it would have.

A new point was brought up in the course of discussion on the evil of mixing. It was stated that a practice had grown up in Bombay during the last year or so of full-pressed bales being opened and after being mixed with all sorts of Bengals, Mathia, Central Provinces and Berar cottons being re-pressed and exported principally to one country only. More than a lakh of bales had been pressed in this manner in Bombay last year. In this connection a cable from the President, Japan Cotton Merchants' Union, Osaka, to the Chairman, East India

Cotton Association, Bombay, was read drawing attention to the intentional mixing and re-pressing of tremendous volume of widely varying cotton and emphasising that the interests of legitimate cotton merchants and shippers were endangered and Indo-Japanese cotton trade unfavourably affected

Finally the meeting adopted the following resolutions —

RESOLUTION—" The Indian Central Cotton Committee congratulates the Bombay Government on the rapid progress they have made with the introduction of the Bombay Cotton Ginning and Pressing Factories Amendment Bill in the Bombay Legislative Council.

The Indian Central Cotton Committee endorses the recommendation of the Local Sub-Committee regarding the detailed provisions in the Central Provinces Cotton Ginning and Pressing Factories Amendment Bill for dealing with watering, excessive seed, introduction of extraneous matter and mixing of different kinds of cotton."

With regard to the new point about re-pressing the *President* suggested that it should be taken up by the Local Sub-Committee. It was possible that some change in the rules for the marking of bales, whether pressed or re-pressed in the Bombay city and island could be effected by which bales of cotton re-pressed in Bombay could be distinguished from those pressed in other parts of India The *Vice-President* suggested that if the Committee would leave the matter to the Local Sub-Committee the latter would try and devise some means to put an effective check to the practice complained of.

SUBJECT 9.—*Report on the Fumigation of American Cotton.*

The meeting unanimously passed a resolution.

RESOLUTION—" That the recommendations of the Standing Finance Sub-Committee that the Government of India be requested to make permanent the present fees for the fumigation of American cotton of Rs. 2-7-0 per square bale and of Re. 1-8-0 per round bale be approved."

It was explained that the charges mentioned in the resolution were those in vogue at present and the Government of India desired to know whether the Committee wished to change them or would like them to be made permanent. Stress was laid on the need for keeping fumigation rates as low as possible.

SUBJECT 10.—*Cotton Options—Proposed additions and amendments to the By-laws of the East India Cotton Association, Ltd.—Reference from the last meeting of the Committee.*

It was explained that the consideration of the subject had been deferred to this meeting in order to enable the President and Vice-President to discuss it informally with the various departments of the Government of India which were concerned. As a result the President made a number of suggestions in a supplementary note.

After a lengthy debate it was resolved unanimously that the Committee's reply to the Government of Bombay with regard to the

proposal to legalise and regulate cotton options should be as contained in the President's Supplementary Note.

The suggestions made in the supplementary note are as follows :—

(*a*) Subject to certain conditions single options, *Teji* or *Mandi*, should be recognised and trading in them regulated by the East India Cotton Association but that double (*Teji Mandi*) options should not be recognised : it must be a condition of such recognition that all unrecognised option business would be prohibited and made illegal—as well as unenforceable. In other words, a Bill on the lines of Sardar Bhimbhai Naik's Bill will have to be passed into law before options can be recognised.

(*b*) It should remain within the power of the Government of Bombay to retrace their steps should the experiment of legalising options prove a failure. As the Bombay Cotton Contracts Act stands at present the by-laws of the East India Cotton Association require the prior approval of the Governor-in-Council but there is no clause enabling the Governor-in-Council to cancel a by-law once made if its working is found unsatisfactory. It is obviously desirable from every point of view that there should be some flexibility especially during the experimental period and the Governor-in-Council should have the power of cancelling or calling for the modifications of any by-law the operation of which was found detrimental to the operations of the East India Cotton Association or to the interests of any part of the cotton trade.

(*c*) It should be a condition of the recognition of option-dealing that all transactions between members and non-members should be registered with the East India Cotton Association though not adjusted in the same manner as transactions between members. One of the great dangers of the present system of unlegalised options is the unknown volume of such options and of the consequential impending operations on the hedge contract market proper. If all transactions in options are registered the position will always be known to the trade in general.

(*d*) Only such options should be recognised as are of use to the genuine trader. It is desirable that the minimum period for options should in no case exceed one month. In fact the original Bombay system included only yearly options and it is clearly desirable that the option period should not be shorter than is needed by legitimate traders. The permissible options should be stated in the by-laws and approved by the Bombay Government.

(*e*) Finally, it is important that these new responsibilities should not in any way endanger the stability of the Clearing House of the East India Cotton Association. So far as transactions between members of the Association are concerned, the existence of the deposit of Rs. 20,000 appears to be an adequate guarantee. But it seems necessary that, in transactions between members and non-members, the non-member should

pay *in cash* the premium for the option so as to discourage over trading. At present this is partly provided for by the draft by-law 191 which however leaves to members a discretion in the matter.

Speeches made in the course of the debate generally commended the President's proposal as an excellent solution of a difficult problem, but very strong views were also expressed in favour of making all cotton options illegal and suppressing them under the criminal law, should that be possible

An amendment urging that these transactions be declared illegal under the Criminal Law was moved and seconded but was lost by nine votes to seven, many members abstaining

Another amendment asking that the minimum period of options be changed from one month to three months was after discussion withdrawn.

The points made in the course of the speeches may be summarised as follows .—

1. Every conceivable method of preventing option business had been discussed at Delhi and the President's note was the result of the conclusions drawn by him.

2. The proposal to legalise and regulate option business was merely a trial and nobody should be dogmatic about its success

3. Several mills and spinners of repute were accustomed to protect themselves by option dealings under certain circumstances.

4. Option dealing was an expert art and those who could tackle options so well, so skilfully, and with such expert knowledge as in Bombay were neither reckless nor ignorant They knew their business thoroughly and their like was rare outside the Bombay market

5 One reason why option business should not be prohibited was that at present the Bombay cotton market with its option business was perhaps the largest market in the world, but without options it would sink to a fourth rate market.

6. It was doubtful if Government would ever be able to suppress all *teji-mandi* business outside the East India Cotton Association, as there were also associations for cotton trading outside Bombay in the Bombay Presidency. *Teji-mandi* business was already going on on a large scale at Ahmedabad and it had also been started at Surat where a cotton exchange had already been opened. It was also in vogue at Indore, Bikaner, Jaipur and other small places and it would continue in those places irrespective of the Bombay Cotton Contracts (Amendment) Bill under consideration by the Bombay Legislative Council

7. Shorter options than one month were a greater danger to the market as undue pressure could be brought to bear by purely speculative elements. Historically too, Bombay used to have only yearly options. At present the unregulated options which caused most trouble were weekly options and for that reason one month had been suggested as the absolute minimum with the proviso, that the period might be extended if a monthly option was not required for genuine trading.

8. In addition to the minimum period of contract a maximum period should also be fixed as the longer the period the more serious the situation would be. A one-year period for *teji-mandi* business would mean that six or seven months business would amount to more than a million bales and if at the end of this period the market fluctuated the danger would increase on account of accumulation. If, on the other hand, the option period was shorter the volume of business would not accumulate as on declaration days old contracts expired.

9. In support of the amendment for suppressing this form of business it was urged that option dealings did not form part of the ordinary genuine trade dealings in cotton but were used by speculators who delighted in huge speculations in all kinds of options.

10. In a falling market options accelerated the decline more than they accelerated the advance in an advancing market. This was a feature definitely against the interests of growers.

SUBJECT 11.—*Half-yearly report* of the Publicity and Propaganda Officer.*

The meeting approved the half-yearly report of the Publicity and Propaganda Officer.

Appreciative references were made to the Publicity and Propaganda Officer's services particularly in the recent instances of the Cotton Control Bill and the Cotton Ginning and Pressing Factories Amendment Bill when these measures were before the Bombay Legislative Council.

The Publicity Officer's services were requisitioned for Hyderabad State during the forthcoming Industrial Exhibition in connection with the Jubilee of His Exalted Highness, and also for following up the work of propaganda against *Goghari* in the next three months in Bombay Presidency.

The Vice-President as Chairman of the Standing Finance Sub-Committee gave the assurance that the services of the Publicity Officer would be freely available subject to the exigencies and business of the Committee at the time the requests were received. He remarked that the members would be glad to know that the Government of India had finally approved of the Committee's recommendation regarding the Publicity Officer's scale of pay.

SUBJECT 12.—*Provincial Cotton Committees—Proceedings of the Sind Cotton Committee.*

Of the varied subjects considered at the meeting of the Sind Cotton Committee, the members gave their attention to the steps necessary to prevent adulteration of the new strains now being grown in Sind and the best types of cotton suited to Sind.

As regards the Bill for the licensing of gins and presses which seeks to amend the original Cotton Ginning and Pressing Factories Act, it was urged that if several varieties were grown mixing was bound to occur and it was therefore necessary to defer the application of the Act to the reserved area until the supply of seed was sufficient.

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* Appendix III (page 52).

The suggestion that not only should the tract be isolated for growing American cotton but also only one variety of American should be grown in it was criticised on the ground that it involved even more risks than if the area were confined to American cottons only It would be difficult to distinguish at present between the four different kinds of American cotton and to say which of them would be most suitable for the reserved area.

A note of warning was sounded against sticking rigidly to one type of American cotton in the reserved area. It would be a great mistake to do so until the varieties being produced there at present had been tried on a much larger scale and the farmers were confident of their yield and their resistance to disease.

Mr. Jenkins expressed his agreement with the view that it was rather premature to grow only one variety of cotton in the compact area in Sind, but Sind Agricultural Department was justified in taking a cotton which they had tested for a number of years in preference to any new types such as the K T types which had never been fully tested in the Barrage areas.

The growing of only one variety of cotton presented very great practical difficulties owing to the March closure of the canals *Sind Sudhar*, to which the Sind Agricultural Department was bound, did not grow well after the 15th of May and it was hoped that a seed selection from 4F. cotton would meet this difficulty as it was a late sowing cotton and was equal to 289F in staple. He considered that the continued importation of cotton seed with the names N.T. and K.T. from the Punjab would cause confusion and there should be some method of controlling this.

SUBJECT 13 —*Summary of Proceedings* of the Local Sub-Committee.*

The Secrtary's note and the summary were recorded

SUBJECT 14.—*Technological Research—Progress Report† of the Director, Technological Laboratory*

SUBJECT 15.—*Technological Research—Report‡ of the Technological Research Sub-Committee*

(The above two subjects were discussed together.)

The meeting unanimously approved the progress report of the Director, Technological Laboratory

The President and *Vice-President* expressed appreciation of the work done by the Laboratory and the efficient manner in which Dr. Nazir Ahmad had conducted it

Reference was made to certain specific recommendations made by the Technological Research Sub-Committee on the report of the Director of the Laboratory. One was that the tests on Boss III and Sea Island cotton from Sind should be repeated on samples drawn from ordinary commercial crops. Comparative tests should be carried out by mills and the Laboratory on the same lots of cotton. The Sub-

* Appendix IV (page 57.) † Appendix V (page 58.)

‡ Appendix VI (page 66.)

Committee drew attention to the necessity of better picking and ginning of such long staple cottons as Boss III and Sea Island because it appeared that these cottons had been damaged by bad handling and these cottons required special care in picking to avoid leaf.

A member suggested that some work should be done on saw-ginned cotton as the spread of American cotton in the Punjab and Sind would lead to a rapid increase of saw-ginning in the next ten years or so. It would be of great help if some tests were carried out for finding out the comparative effect of saw-gins and roller-gins on these cottons.

Dr. Nazir Ahmad expressed his willingness to make the tests suggested.

Discussion centred on two main points arising from the report; first, that the results of the tests made in the Technological Laboratory on Boss III and Sea Island cottons did not correspond with the results obtained by the mills; second, what was the most advantageous process for manufacturing artificial silk and how far the cellulose from the Indian short staple cotton could be utilised.

With regard to Boss III and Sea Island cottons it was pointed out that one firm had bought them at Rs. 450 per *khandy* and sold them at a very heavy loss as they did not prove a satisfactory substitute for similar Egyptian cottons. Test made on these cottons had revealed that the ginning was unsatisfactory and the staple most irregular.

A number of explanations were offered by speakers for the difference between the results of the laboratory tests and those obtained in mills on these two varieties of cotton.

Laboratory tests were carried out on agricultural samples which were handled in a certain standard manner but nothing was known of the real origin of the sample of Giza cotton. In view of this doubt it was considered necessary that the Director should arrange for tests at the Laboratory and in certain mills on samples drawn from the same bales to find the cause of the difference in the results obtained and of the apparent irregularity of the staple.

It was thought that in the case of Sea Island cotton better picking might considerably improve it. Immature bolls had been picked probably due to the fact that the agriculturists were used to short staple cotton and they applied the same method of picking to long and short staple cottons. It would be well for the Committee to consider the whole question of picking once again and to ask Directors of Agriculture in each province to say whether there was any room for improvement in picking particularly in those districts where longer staple cotton was now grown. Directors of Agriculture might also be able to say whether the same methods of picking were suitable to short as well as to long staple cottons and if not what their suggestions were. So long as picking methods were not improved much of the Committee's propaganda work would be lost.

Besides better picking, the method of ginning should also be investigated, inasmuch as the defects mentioned might possibly only

have been due to incorrect ginning. All gins in India were set for Indian cottons and information was lacking as to what was the best setting and the best method of ginning long staple cottons.

The Director, Technological Laboratory, said that the Laboratory had a small gin but he did not know whether experiments on such small gins would be accepted by the trade.

The President said that the Agricultural Department in Sind had a small ginning factory of its own and that it would be in a position to carry out the necessary experiments The Director, Technological Laboratory, would give the help required

As regards artificial silk manufacture, the Director of the Industrial Intelligence and Research Bureau was asked whether it would pay better to import wood pulp from Canada or to manufacture artificial [illegible] suming [illegible] nd that [illegible] it the cost would work out at about 2 to 2½ annas per pound. But if investigations showed that wood pulp could be imported for half that price, there would be no need to continue the experiments with Indian short staple cotton. If, however, it was found that compared with wood pulp cellulose could be produced from short staple cotton cheaper, the investigations might be pursued.

At present India's short staple cotton was exported chiefly to Japan but the time would come when Japan would not need any Indian cotton at all. The question, therefore, to be considered by the Committee was in the event of Japan refusing to take Indian short staple cotton what other use could be found for such cotton.

The Director of the Industrial Intelligence and Research Bureau undertook to do all he could to obtain the information required by the Committee but the subject was a new one to him and he would like to be furnished with more details to enable him to decide how best he should proceed in the matter.

The Director, Technological Laboratory, pointed out that the investigation of the cellulose content of the various Indian short staple cottons was not yet complete *The Director of the Industrial Intelligence and Research Bureau* proposed working on the industrial aspect and said he would be glad to co-operate with him and help to make the figures as accurate as possible

The Committee then adopted the report of the Technological Research Sub-Committee.

SUBJECT 16 —*Report of the Research Students' Selection Sub-Committee.*

The meeting confirmed the report of the Research Students' Selection Sub-Committee.

The President in proposing the adoption of the report remarked that the standard of the candidates on this occasion was [illegible] satisfactory, being the best for a long time.

SUBJECT 17.—*Report* of the Special Sub-Committee to consider the question of a wider market for Indian cotton.*

SUBJECT 43.—*Fall in the exports of Indian cotton to China.*

(The above two subjects were discussed together.)

The Special Sub-Committee discussed the position of Indian cotton in the various markets of the world and in particular the falling off of the exports of Indian cotton to China. For various reasons Indian cotton had been losing ground in Continental markets as well as in China and it was not considered that this was entirely due to the large supply of American cotton. The increase in tariffs and other obstacles to International trade, clearing-house agreements, barter agreements and the like all seemed to act unfavourably on Indian cotton exports. The Sub-Committee felt that this matter required special attention as there was always a risk that a change of this character might become permanent. Several members of the Committee emphasized the importance of increasing the outlet for short staple cotton especially in the interests of cultivators in the Central Provinces and Berar. A question was also asked whether work on lines similar to that done by the Lancashire Indian Cotton Committee could not be started in such countries as Sweden where prospects seemed favourable. It was decided to bring the matter before the Government of India and to ask that it might receive special attention. *The President* undertook to do this.

SUBJECT 18.—*Mixing of old cotton and mill droppings, etc., in new crop cotton at Dhulia, Bombay Presidency.*

It was explained that a complaint regarding this serious malpractice had been made in a letter addressed officially to the Chairman of the Cotton Market Committee by responsible persons including local merchants and exporters. There was no doubt that the mischief was actually going on on a fairly big scale. It was of long standing and had been referred to by the Indian Cotton Committee of 1917. It was true that the East India Cotton Association penalised these malpractices.

In the ensuing debate on the method of dealing with the evil, it was pointed out that the Cotton Transport Act had been very useful in preventing articles like fly droppings, wastes, etc., going from one area to another but in this particular case there was a local mill and it was believed that mill-fly, droppings and wastes had been used for mixing. It was a fit case to be sent to the Bombay Government requesting them to apply the Cotton Ginning and Pressing Factories (Amendment) Act, when passed, to that area also.

The Governor in Council had only to extend the operation of the Act to other parts of the Presidency but before doing so an amendment in the definition of "mixture" might be necessary to make it clear that mixing of old cotton was also prohibited.

The meeting then carried unanimously a resolution that the complaint from Dhulia be reported to the Government of Bombay for effective prevention of this sort of malpractice reported by means of the Bombay Cotton Ginning and Pressing Factories (Amendment) Act.

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* Appendix VII (page 67.)
A separate summary of Subject 17 appears on page 32.

SUBJECT 19.—*Report* of the Agricultural Research Sub-Committee.*

It was explained that in pursuance of the decision of the Committee that a comparison of Iran herbaceum cottons with those of the Dholleras tract with a view to find out a medium or long staple cotton suitable for this tract should be undertaken, a member of the staff of the Institute of Plant Industry, Indore, was sent to Kathiawar in November to examine the condition of Mathio cotton and it had further been proposed that he should go to Iran in September. The visit to Iran would cost the Committee Rs 4,000 The report on the observations made in Kathiawar showed that it was necessary to have for Kathiawar a type of cotton with a short-growing period which would ripen earlier than the present type. It would appear that such a selection of finer neglectum similar in species and having the general habit of Mathio cotton could be made in the local material Early herbaceums might be obtained by crossing Iran cottons with the material available in Kathiawar

The meeting approved the proposed visit to Iran.

The full report of the Agricultural Research Sub-Committee was then unanimously adopted.

SUBJECT 20.—*Punjab Pink and Spotted Boll-worm Scheme—Reply of the Director of Agriculture, Punjab, on the observations made by the Committee at its last meeting.*

At its last meeting the Committee had recommended that the Director of Agriculture, Punjab, should adopt certain control measures on the lines of what had been successful in Surat The Director of Agriculture gave two reasons why the measures recommended were not undertaken, the first being that the host plants which harboured the insects had not been sufficiently investigated, and the second that the plant puller invented for Surat had not been satisfactory for Punjab conditions, as it was found to be not strong enough These reasons seemed to the Agricultural Research Sub-Committee sufficient for postponing action.

Among other reasons for not taking action was the fact that the area of 150 square miles specified by the Committee at its last meeting was not considered sufficient for a clean-up campaign to give any practical results. No such area protected on any side was available and consequently the conclusion was arrived at that the clean-up measures would have to be carried out in a much bigger centre. This required a great deal of advance propaganda but as the cotton season had already far advanced that year, there was no time to do the propaganda. In view of these considerations, next year was the earlie[illegible] by which action could be taken.

The report of the Agricultural Research Sub-Committee was ado[illegible]

SUBJECT 21.—*Bikaner Gang Canal Scheme—Extension of*

It was made clear that during the period of its extension [illegible] same problems would not be dealt with as in the original scheme. It was therefore, suggested, that the name of the scheme should [illegible] changed to "The Bikaner Gang Canal Bengals Cotton [illegible]
The Committee had sunk some capital on [illegible]

* Appendix VIII page 65).

Ganganagar and with the goodwill of the Bikaner Durbar it would be possible to do some work of much value at comparatively small expense to the Committee. On the other hand there were still some problems which needed investigation such as the study of material of *desi* cottons from which strains could be evolved which would give finer *desi* cotton in the Bengals and Punjab *desi* tracts. It was proposed in this scheme to gather together as much material of finer *desi* types as could possibly be collected for ultilisation by plant breeders in the Punjab, the United Provinces, etc., with the object of substituting a finer type of Bengals cotton in the present Bengals tracts.

The report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 22.—*Punjab Cotton failure Research Scheme—Revised proposals for.*

Work under the scheme started in March 1935 and their Physiologist, Prof. Dastur, found out in a few months that the internal structure of the leaves, stems and roots of the cotton plant showed an abnormality which indicated a serious derangement of the nutrition in the plant. From the Physiologist's observations it would appear that this was to be attributed to the presence of a micro-organism in the plant. If that were proved to be the case and a remedy against its development found, a discovery would have been made which might altogether revolutionise cotton growing. It was observed that this important discovery required every encouragement.

Further, the unusual organisms observed by Prof. Dastur had been found to exist not only in Punjab-American cotton on which work was originally started but also in *desi* and in practically every other cotton from all over India which had been examined up to then with one or two exceptions.

The Agricultural Research Sub-Committee felt that for the moment, apart from continuing the observations on Punjab-American cottons, the investigation should be concentrated on the problem as to whether there really existed a connection between the organisms which had been found in the plant and the disintegration of important parts of the plant's mechanism.

The President remarked that the first year of Prof. Dastur's work had thrown new light on this important problem and the Sub-Committee's recommendations had also indicated what the approximate cost of further experiments would be. All that was now wanted was the approval of the Committee to the report of the Agricultural Research Sub-Committee and to the recommendation that the Standing Finance Sub-Committee should sanction the allocation of funds when detailed proposals were received from the Director of Agriculture.

The report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 23.—*Punjab Cotton White Fly Research Scheme—Proposed extension of.*

The meeting adopted the report of the Agricultural Research Sub-Committee sanctioning the extension of the scheme for six months up to 30th September 1936, the cost to be met from savings under the scheme.

SUBJECT 24.—*Report* of the Cotton Forecast Improvement Sub-Committee.*

SUBJECT 25.—*Post-mortem examination of cotton forecasts of* 1934-35 *season.*

(The above two subjects were considered together.)

Comments were made in the course of discussion on some states in Rajputana not devoting sufficient attention to preparation of cotton forecasts, the difficulty in getting information from these states, and on the discrepancy between the forecast and the actual yield, particularly in Hyderabad State and Gujerat.

In answer to an enquiry it was explained that standard yield figures were usually based on crop-cutting experiments. These experiments were made about twenty years ago in India and it was suggested that they should now be made again on a large scale.

With regard to Hyderabad State it was pointed out that a good deal of cotton from it was pressed in the two adjoining provinces, viz, Bombay Presidency proper and Madras Presidency, and that when these three units were taken together the discrepancy was negligible. As for Gujerat, the estimated crop of Gujerat and Kathiawar in combination with the interlacing Gujerat States allowing for certain discrepancies would be within three per cent. of the number of bales pressed

As regards Sind, before the Barrage commenced, the standard normal yield per acre in the different districts in Sind had been fixed at a fairly low figure, but when the Barrage irrigation commenced, the figures were raised. From the discrepancies still occurring in the Sind Forecast it was thought that the standard normal yield had not been increased sufficiently and Sind ought to be credited with higher yields of kapas per acre than the figures indicated

The meeting then adopted the report of the Cotton Forecast Improvement Sub-Committee.

SUBJECT 26.—*Reports of enquiries into the village consumption of cotton.*

The President said that the Sub-Committee hoped that at the next meeting a complete estimate of the village consumption of cotton in India would be available Very interesting figures had come in but they were still incomplete.

The report of the Cotton Forecast Improvement Sub-Committee was adopted.

SUBJECT 27.—*Cotton Forecast Improvement Scheme in the Bombay Presidency—Proposed permanent retention of the staff or extension of scheme for three years*

It was recommended that in view of the very good work done in this scheme it should be extended as recommended by the Sub-Committee.

The Sub-Committee's recommendations were approved.

* Appendix IX (page 90)
A separate Summary of Subject 24 appears on page 34.

SUBJECT 28.—*Report* of the Standing Finance Sub-Committee.*

(*a*) *Balance Sheet.*
(*b*) *Financial Statement.*
(*c*) *Revised Estimates, 1935-36.*
(*d*) *Budget, 1936-37.*
(*e*) *Auditors' fees.*

The meeting unanimously adopted the following resolution:—

RESOLUTION—"That the report of the Standing Finance Sub-Committee be adopted."

"That the revised estimates for 1935-36 be approved."

"That the budget for 1936—37 as amended at this meeting of the Indian Central Cotton Committee be sanctioned."

"That Messrs. S. B. Billimoria and Company be reappointed auditors for the year 1936—37 on a remuneration of Rs. 750."

Several questions were put regarding the general finances of the Committee which were answered by the Vice-President. In regard to the expenditure on the Technological Laboratory, it was explained that the Technological Sub-Committee had appointed a special Sub-Committee to go into the question of the possibility of reducing the recurring expenditure at the laboratory without affecting its efficiency and usefulness. As regards the general financial position of the Committee, it was pointed out that this had been very fully discussed 18 months ago and that the Committee had come to a definite conclusion regarding the minimum balance which should be maintained—a proposal which had been approved by the Government of India. The Committee was certainly drawing on its accumulated balances to finance the activities which it considered to be of importance and they were satisfied that the results to be obtained during the next two or three years would show the wisdom of that course. It was also pointed out that the expenditure budgetted was Rs. 10.4 lakhs as against estimated receipts of Rs. 7.4 lakhs, so that the Committee would be drawing on its balances to the extent of 3 lakhs only which was considerably less than was anticipated a year ago. At the end of the coming financial year, the Committee's reserve would still stand at nearly 21 lakhs, so that there was no cause for anxiety at the moment. Nevertheless, in two or three years time the Committee would have to face the question whether they should reduce their activities especially in the direction of extension schemes or go up for an increase in the amount of the cess.

SUBJECT 29.—*Lancashire Indian Cotton Committee—Work of—Note† by Mr. H. C. Short, Cotton Commissioner.*

The meeting unanimously resolved :

* Appendix X (page 91).
† Appendix XI (page 94.)

RESOLUTION—"This Committee desires to record its appreciation of the excellent work of the Lancashire Indian Cotton Committee. The large increase in the takings of Indian cotton in the last three years is a striking testimony to the efficiency of their organisation and propaganda."

Speakers on the resolution bore personal testimony to the keenness and efficiency shown by the Lancashire India Cotton Committee.

The export figures showed clearly how much the takings of Indian cotton had gone up during the last three years and in the year just passed they had amounted to 400,000 bales

The work had been done in an admirable manner and this was due to the fact that from the very start Sir Richard Jackson and his collaborators set to work with determination.

The view was expressed that the Indian cotton exporter however still felt that there was room for great improvement regarding the handling of Indian cotton in Liverpool. It was realised that this matter was not directly under the organisation of the Lancashire Indian Cotton Committee but it was important as it greatly affected dealings between India and Great Britain in raw cotton. For instance, about two years ago there were serious complaints to the effect that Indian cotton was being treated more harshly in Liverpool arbitrations than it deserved and now the Liverpool Cotton Association had revised their Futures Contract with the result that while cotton coming from other parts of the world and especially the British Empire had been included in it, Indian cotton alone was left out The reason given was not that India did not produce cotton which possessed the requisite strength, length and cleanliness required by the Futures Contract, but that, Indian cotton could be tendered under the "East Indian Contract" Every exporter of Indian cotton to Liverpool however knew that that contract was only on the statute book and nothing more. There had been practically no dealings under that contract and the quotation for it was merely nominal and was only used for purposes of "invoicing back" If India and Great Britain were to get closer in regard to cotton dealings and if cotton exports to the United Kingdom were to be on a very large scale, these grievances of the cotton trade should be set right and Indian requirements met fully at Liverpool.

In reply to this criticism regarding the Empire Futures Contract it was explained on behalf of the Lancashire Indian Cotton Committee that on the last occasion when there was a meeting at Liverpool the Indian representatives were not quite decided as to what they wanted to put forward But if it was desired to hold a meeting at Liverpool and if the Indian representatives put their case forward there would not be the least difficulty.

Some amendments were suggested in the Chart prepared by the Lancashire Indian Cotton Committee, to show the spinning quality of certain Indian cottons.

It was pointed out in reply to these remarks that the statements in the Chart were based on tests made at the Shirley Institute and the tests were carried out with the object of obtaining o m re and checked by one of the largest spinners.

It was mentioned that spinners in Lancashire did not appear to know all the various types of cotton which were grown in India and the purposes for which they were suited. The Cotton Commissioner of the Lancashire Indian Cotton Committee had discussions with them regarding these cottons and in many instances showed them actual cottons. This was one reason why the chart was prepared by the Shirley Institute and distributed to spinners. The Cotton Commissioner found that spinners were now taking much more interest in Indian short stapled cotton than formerly and imports of these cottons were steadily increasing. He visited a group of three mills where a new blow room had been installed purely for treating Indian cottons. Sind and Bengals are to be used by this group.

The President suggested that the Local Sub-Committee should in consultation with the East India Cotton Association consider the character of the representation which should be put forward to the Liverpool Cotton Association. Apparently the new Empire contract was not a live one and was also not popular; it was of very limited value for cottons other than American, because it dealt with only saw-ginned cotton.

SUBJECT 30.—*Railway freight rates on cotton—Reference from the last meeting of the Committee.*

The President stated that he had not been able to get information regarding the cost of cotton production. The Secretary's office should, therefore, go ahead with the examination of this question in relation to the work which the Railway Conference Association was doing. The point which had been emphasised at the previous meeting was the incidence of railway freight on cotton with reference to its value as compared with different commodities. The conference called by the Railway Conference Association in July 1935 in Delhi at which he was present had decided on a general study of re-classification of goods as regards freight, and he thought that the Secretary's office should get on with this question now.

SUBJECT 31.—*Formation of a compact block of long staple cotton in Sind—Letter from the Bombay Government.*

The intention of the Agricultural Department with regard to the variety of cotton to be encouraged in the compact area was clarified in the course of debate. It was explained that the statement in the Bombay Government's letter to the Committee that it was not the intention of the Department to distribute seed of the variety of cotton known as 4F and that its cultivation was discouraged was liable to be misunderstood. The Department had an improved variety 4F-98 which was being multiplied as rapidly as possible for distribution on the Right Bank areas and not in the compact area. Difficulties were being experienced in view of the fact that neither the variety of 289F known as *Sind Sudhar* cotton—nor the "NT" varieties grow well when sown after the middle of May. As a result cultivators in many places had been sowing *desi* in June. The 4F-98 type of cotton stood late sowing well and although its staple was not as good as *Sind Sudhar* it had a good demand. Until therefore a cotton equal to *Sind Sudhar* in staple and quality was available for late sowing a certain amount of 4F-98 seed might have to be distributed in the compact

area. There were believed to be one or two varieties equal to *Sind Sudhar* which could be sown in late May The difficulty was aggravated by the fact that the Sind Irrigation Department closed the canals for two weeks in March, i.e., at the very time when staple cottons could very profitably and most successfully be sown The Agricultural Department had the abolition of this closure, and imately to meet the recommendat in this respect. ime for long of the diffi- well and this year seed of *Sind Sudhar* sufficient for half the compact area, namely 1½ lakh acres, would be available Improved methods of distribution in co-operation with some of the big zamindars were being adopted.

With regard to the difficulty of getting a cotton approximating to *Sind Sudhar* in staple for late sowing it was pointed out that one of the new cottons (NT 43) evolved by the Cotton Research Botanist, Punjab, now permanently named 43F had given most remarkable results in Multan area which bordered on Sind. It was suggested that experiments be carried out in Sind with this cotton

The Secretary's Note was recorded.

SUBJECT 32.—*Khandesh (Banilla) Seed Distribution Scheme—Proposed extension of.*

The meeting agreed to the recommendation of the Agricultural Research Sub-Committee that the Scheme be extended for one year.

The question of apportionment of the cost of such schemes between the local governments concerned and the Committee during periods of extension granted to them led to a detailed discussion and finally at the President's suggestion it was postponed to the next meeting of the Committee.

The Directo of Agriculture, Bombay, pressed for the fixing of a definite percentage of the costs of extension of seed distribution schemes which local governments were called upon to bear. He pointed out that the spending the funds of the Committee to a certain extent for seed distribution schemes was just as reasonable as using them for study of costs of cultivation. Unless the Committee helped in the distribution of seed the cultivator would not get the full benefit of successful research work.

On behalf of the Committee it was emphasised that seed distribution was more a function of the local government than of the Committee.

Agriculture and subsequently sold to cultivators through agents, the Punjab Government bearing the loss, if any. It was not necessary for the Committee at any rate to finance such seed distribution schemes entirely. The Local Government should accept definite responsibility for a large part of the cost.

The President, proposing postponement of the the question, mentioned that the Committee's rupees a year and at present the Committee

reserves in order to give immediate benefit to cotton growers. It was therefore necessary to limit expenditure on seed schemes. Further with provincial autonomy from 1937 the provinces would probably have larger financial resources and they should not expect too much from the Committee.

SUBJECT 33.—*Form of Abstract Proceedings of meetings of the Committee.*

The President said it was his idea to make the Abstract Proceedings of the Committee as far as possible a complete summary of the discussions including abstracts of the papers considered at the meetings. This record, however, should be an impersonal one, otherwise some speakers would be placed at a disadvantage and the record would not be as complete as it might. It had already been decided that the Minutes of the Committee could be shown confidentially to the Associations and Chambers of Commerce represented on the Committee and especially to the Committees of those Associations. He suggested that this procedure should be tried for one meeting to see how it worked. At the next meeting its success or otherwise could be discussed.

The meeting approved the President's suggestion.

SUBJECT 34.—*Provincial Cotton Committees—Proceedings of the Punjab Provincial Cotton Committee.*

The meeting recorded the Secretary's note on the proceedings of the Punjab Provincial Cotton Committee. The Punjab Committee among other things dealt with the extension of the Cotton White Fly Research Scheme (*vide* subject 23) and a revised scheme for the investigation of the periodic partial failures of the Punjab-American Cotton Crop (*vide* subject 22).

SUBJECT 35.—*Madras Fodder Cholam Scheme—Proposed further extension of.*

The meeting adopted the report of the Agricultural Research Sub-Committee recommending extension of the Scheme for a year and sanctioning a grant of Rs. 4,210.

SUBJECT 36.—*Broadcasting in the mornings of commercial news on cotton—Letter from the Government of Bombay.*

The President said that from papers on the subject it would be seen that this question was still under the consideration of the Government of India.

The Secretary's Note was recorded.

SUBJECT 37.—*Training Grants.*

The Committee decided not to re-open this matter as it had been fully discussed at the last meeting.

SUBJECT 38.—*Gujerat Boll-worm clean-up Scheme—Measures for the eradication of the boll-worm pest in Gujerat—Letter from the Government of Bombay.*

The President remarked that the letter was for record. The Committee was aware that the Government of Bombay were taking practical

interest in the matter and they could not be expected to undertake further legislation at the moment.

The Secretary's Note was recorded.

SUBJECT 39.—*Proposed amendment in Form A prescribed under Rule* 16 *of the Indian Cotton Cess Rules*, 1923.

The President said that the Government of India had asked the Committee to obtain the views of the various Millowners', Associations in the matter This was being done and the action taken was only reported for information

The Secretary's Note was recorded.

SUBJECT 40—*Hyderabad Pink and Spotted Boll-worm—Proposed extension of*

SUBJECT 41.—*Hyderabad Seed Distribution and Extension Scheme—Proposed extension of.*

(The above two subjects were considered together.)

The meeting adopted the report of the Agricultural Research Sub-Committee proposing that the above Schemes be extended upto 30th September 1936 and 31st August 1936 respectively so that the proposals for extension might be carefully examined at the next meeting

SUBJECT 42.—*Sir Albert Howard's criticism* of the Committee's work and policy.*

It was pointed out by a member that the criticism of Sir Albert Howard was practically an accusation that the Committee had not devoted sufficient resources or energy to furthering the manufacture of compost generally all over India The manufacture of compost was one of the ways of maintaining the fertility of the soil and the investigation of soil fertility was not a problem peculiar to cotton only but it was important to all crops and all agricultural products in the country. This problem was one of the major duties of the Provincial Agricultural Departments in India The Committee had always endeavoured not to supplant the work of [illegible] but to supplement it in particular directi[illegible] points in Sir Albert Howard's criticism [illegible] was the statement that the money of the Committee had been dissipated on schemes of research in entomology which had given no practical results to the grower. Since Sir Albert left India two entomological schemes had passed through the final stage and had given very valuable and satisfactory results which had proved of great benefit to the grower. The second was the statement that the Committee was wasting its time and money in many plant breeding and seed distribution schemes. Seed distribution work was of the first importance as it put money into the pockets of the cultivator and good cotton into the mills.

A press *communique* † replying to Sir Albert Howard's criticism was discussed and approved with certain amendments.

(Subject 43 was considered along with Subject 17.)

* Appendix XII (page 94.) † The communique has since appeared in the Press, *Vide* Appendix XII (page 94)

SUBJECT 44.—*Crop Atlas of India*—Varietal Cotton Map.*

The President explained that the crop atlas of India contained two cotton maps one of which showed the density of cotton growing and the other the distribution of varieties. As a revised trade classification was under consideration, the Department of Commercial Intelligence and Statistics had suggested that the varietal map might be left out in the new edition of the crop atlas. It seemed to him that this omission would be a great mistake. The Sub-Committee had therefore gone carefully into the matter and after making certain modifications it had been possible to bring the new classification into the map. It was also decided that no attempt should be made to show density in the varietal map.

The recommendations of the Cotton Forecast Improvement Sub-Committee were approved.

SUBJECT 45.—*Report of the Sub-Committee appointed to work out details for holding a conference of scientific workers.*

The report was adopted with some amendments. *The President* said it was proposed that there should be no limit to the number of workers to attend the conference but discretion should be left to the Directors of Agriculture as to who should be sent. Travelling allowance of officers working on the Committee's schemes should be met from the grants for the schemes and that of others by the Local Governments concerned.

The President thanked the members cordially for the very kind and courteous attention shown to him during the Committee's deliberations.

The meeting terminated with a hearty vote of thanks to the President.

Summary of the Proceedings of the Special Sub-Committee to consider the question of a wider market for Indian cotton.

The Special Sub-Committee to consider the question of a wider market for Indian cotton at its meeting on 11th January 1936 first took up the subject of publication of articles on Indian cottons in the London *Times* and the *Manchester Guardian Commercial* and decided that the Director, Technological Laboratory, should continue to send articles for publication in the Textile weeklies and other magazines which might show interest in them and that any agricultural officer wishing to contribute articles to the *Manchester Guardian Commercial* might send them to the Secretary for transmission to the editor.

Under the head of popularising Indian short staple cottons among manufacturers of woollen goods the Sub-Committee approved that of the samples of cotton sent to the United Kingdom for testing, the U. P. and Mathia should be stopped.

The Sub-Committee decided that a small Sub-Committee consisting of representatives of the East India Cotton Association and the Indian Central Cotton Committee should be appointed to consider the question

* Appendix XIII (page 97.)

of an authoritative " Guide to Indian Cottons " and that the Indian Central Cotton Committee should be represented on it by the following members :—The Vice-President (Chairman), Messrs. S. D. Saklatvala, J. H. Ritchie, R. G. Saraiya, D. McCallum and Dr. Nazir Ahmad.

Sir Richard Jackson who was present by invitation said that an exhibition of goods made out of Indian cottons particularly of Bengals and Oomras types was held in London last year. Visitors took considerable interest in these articles and asked a lot of questions on them. The exhibition was shifted to Lancashire where it aroused to a remarkable degree the interest of all those engaged in cotton trade there. He was sure that the next report of the Lancashire Indian Cotton Committee would give some more information of these exhibitions but the net result of the Committee's activity was that several mills which had never used Indian cotton before had now commenced to make use of it and that such of the mills as had been using this cotton in the past continued to use it.

In reply to a question it was stated that Indian cotton was re-exported from the United Kingdom to the extent of about 20,000 bales.

The President said that the figures for mill consumption given by the International Federation were those voluntarily supplied by mills and did not include cotton used for mixing with wool, quilting and many miscellaneous purposes It would be worth while to compare the figures of the Lancashire Indian Cotton Committee with the United Kingdom import returns.

To a query whether the Lancashire Indian Cotton Committee had any complaint against the marking of bales in India, *Sir Richard Jackson* said that some bales were found badly marked while the marks on some others were obliterated. There was however no serious trouble on this account during the past two years.

The Vice-President said that the original method of marking had to be given up as it had worked hard on middlemen and that the obliteration of marks mentioned by Sir Richard Jackson might be either intentional or accidental. [illegible]

[illegible] section of the trade was against the marking of bales and there was therefore no question of reverting to the old method.

Mr H. C. Short's note on the Shirley Institute and Indian Cotton was recorded and a resolution was passed expressing appreciation of the excellent work of the Lancashire Indian Cotton Committee and declaring that the large increase in the takings of Indian cotton in the last three years is a striking testimony of the efficiency of their organisation and propaganda.

With regard to periodical reviews of the state of foreign trade in Indian cotton a member drew attention to the absence of any mention in the papers before the meeting of the imports of Indian cotton and other cottons by various countries and the relative tariff position and said it would be a great advantage to the trade in India if information of this kind was placed before the Sub-Committee at its meetings.

The President said that the Imperial Council of Agricu[illegible] had some information on the subject and that he [illegible]

question with the Director-General of Commercial Intelligence and Statistics to avoid overlapping.

The Sub-Committee then discussed further the question of the imports of Indian cotton to Germany and the report of the Indian Trade Commissioner in Hamburg. The fallen exports to China were also discussed. The Sub-Committee emphasized the necessity of watching the position lest the diminution in export should become permanent.

Summary of the Proceedings of the Cotton Forecast Improvement Sub-Committee.

The Cotton Forecast Improvement Sub-Committee at its meeting on 9th January 1936 first considered reports of enquiries into the village consumption of cotton.

It was observed that the *per capita* consumption in the Central Provinces districts varied between wide limits and that also the total consumption for the whole province was only 8,000 bales.

Surprise was expressed by one member that the coldest districts used less cotton than the warmest. It was noted that this might be due to the fact that the cold districts did not produce cotton. A check might be possible only when the figures for the neighbouring districts of the adjoining provinces were available.

The report for the Central Provinces was approved subject to further examination in the Committee's office when all other reports were received.

As for the United Provinces it was noted that the total village consumption was higher than for the Central Provinces but that compared with the Punjab it was not unduly high. In the United Provinces the use of cotton for quilted garments was large. The report for the United Provinces was agreed to subject to final check in the Committee's office.

It was decided that the Directors of Agriculture, Madras and Hyderabad, and the Chief Agricultural Officer in Sind should be requested to send in their reports in time for the next meeting.

The Sub-Committee then examined the cotton forecasts of 1934-35 season.

It was noted that the number of bales actually accounted for had exceeded the forecasted crop by about half a million and that if the conventional figure of 750,000 bales for extra-factory consumption was also taken into account the discrepancy between the two figures was still wider.

In the case of Rajputana States the President observed that though the discrepancy was big when each state was taken separately, it considerably narrowed down when all states were considered together. He suggested that such of the member states of the Indore Institute as were not giving sufficient attention to cotton forecasts might be approached through the Board of Governors.

The President's suggestion was agreed to.

The Sub-Committee then considered the cotton crop forecast improvement scheme in the Bombay Presidency and agreed that the scheme should be extended for three years from the 16th June 1936 at the end of which period the Bombay and Sind Governments should be asked to make the staff permanent and use it if necessary for other crops as well.

On the subject of the crop atlas of India the Sub-Committee arrived at the following conclusions :

(1) That the request of the Director of Agriculture, Central Provinces, not to separate Central Provinces and Berar Verums for fear of prices of Berar Verum which forms the bulk of the crop being adversely affected owing to its association with Berar Oomras, may be agreed to. The Director of Agriculture, however, had no objection to Nimar Verum being shown separately because it was mostly formed of Buri mixed with Verum and Oomras. The Sub-Committee concurred with this view,

(2) that the classification suggested by the Director of Statistics, Hyderabad (Deccan) for showing Raichur, Kumpta and Upland separately under item IX (2) in the Revised Scheme may be retained,

(3) that Sironj, Chhabra and Pirawa Parganas of Tonk, and Jhalawar and Partabgarh States may be included under "Central India,"

(4) that, in the Varietal Map, Bengals, Oomras, Hyderabad Gaorani, Central India [illegible] Tinnevellies, Salems, [illegible] by distinctive colou[illegible] and Central India crops and between Broach and Surti crops can be brought out by a suitable choice of like colours or different shades of the same colour,

(5) that Americans, Verum, Banilla and Cambodias may be shown in their respective tracts by hatching,

(*N.B.*—Sub-classes such as Malvi and short staple Dholleras need not be shown in the map.),

and (6) that the sub-classes United Provinces *Deshi*, Punjab *Deshi*, Sind *Deshi*, Rajputana *Deshi*, Berar Oomras, Central Provinces Oomras, Nimar Oomras, Khandesh Oomras, Barsi-Nagpur Oomras, Hyderabad Oomras, Gujerat Dholleras, Kathiawar Dholleras, Cutch (Dholleras), Kumpta and Upland, Bijapur and Bagalkot Jowari, Westerns, White and Red Northerns, Warangal and Cocanadas and Chinnapathi may be demarcated by boundaries and named.

RESOLUTIONS.

1. " The Indian Central Cotton Committee notes with great satisfaction the Knighthood conferred on the acting President and tenders its cordial congratulations to Sir Bryce Burt on the high honour conferred on him."

Cotton Options—Proposed additions and amendments to the Bye-laws of the East India Cotton Association, Ltd.

2. " That the reply to the Bombay Government be as contained in the supplementary note presented by the President."

Appointment of Vice-President.

3. " That Sir Purshotamdas Thakurdas be re-elected Vice-President for the year 1936-37."

Standing Finance Sub-Committee.

4. " That the following members be appointed to form the Standing Finance Sub-Committee for the financial year 1936-37 :—

The President (*ex-officio*),
Sir Purshotamdas Thakurdas,
Mr. S. D. Saklatvala,
Mr. J. Vonesch,
Mr. Chunilal B. Mehta,
Mr. G. C. R. Coleridge,
Mr. A. A. Sarantides,
Rao Bahadur G. R. Kothare, and
Sardar Rao Bahadur Bhimbhai Ranchodji Naik."

Cotton Ginning and Pressing Factories Sub-Committee.

5. " That the following members be appointed to form the Cotton Ginning and Pressing Factories Sub-Committee :—

Sir Purshotamdas Thakurdas,
Mr. S. D. Saklatvala,
Mr. A. A. Sarantides,
Mr. J. Vonesch,
Mr. Chunilal B. Mehta,
Mr. G. C. R. Coleridge,
Mr. J. Nuttall,
Mr. W. Roberts,
Mr. J. Tinker,
Mr. Y. G. Deshpande,
The Co-operative Representative—Rao Bahadur M. G. Deshpande, (*ex-officio*),
Mr. Chellaram Shewaram (Co-opted member)."

Local Sub-Committee.

6. "That the following members be appointed to compose the Local Sub-Committee :—

The President,
Sir Purshotamdas Thakurdas,
Mr. S D Saklatvala,
Sardar Rao Bahadur Bhimbhai Ranchodji Naik,
Mr. J. Vonesch,
Mr A. A. Sarantides,
Mr. Chunilal B. Mehta,
Mr. G. C. R. Coleridge,
Rao Bahadur G. R Kothare"

Agricultural Research Sub-Committee.

7. "That the following members be appointed to form the Agricultural Research Sub-Committee .—

I. The President, (*ex-officio*),

II. The Vice-President, (*ex-officio*),

III The Director, Institute of Plant Industry, Indore—Mr F K Jackson (*ex-officio*).

IV The Co-operative Representative—Rao Bahadur M. G Deshpande (*ex-officio*),

V Cotton Growers' Representatives .—
Mr W Roberts,
Mr N M. Deshmukh,
Mian Nurullah,

VI. Cotton Trade Representatives .—
Rao Bahadur G R. Kothare,
Mr Chunilal B Mehta,

VII. Agricultural Officers —
Dr W Burns,
Mr J. H Ritchie,
Mr. H. R. Stewart,
Mr V. Ramanatha Ayyar,
Dr. F J. F. Shaw,
Mr. R. G Allan,
Mr. W J. Jenkins,
Rao Bahadur D. Ananda Rao Garu,
Mr D. N. Mahta,
Mr. P B. Richards,
Mr. J. C. McDougall,
Mr. Nizam-ud Din Hyder,
Mr. H. H. Pandya,
Dr. V. K. Badami,

VIII. Additional Members :—
Mr. Chellaram Shewaram,
Mr. Mohammad Afzal,
Rai Saheb Kalidas Sawhney,
Mr. J. B. Hutchinson,

IX. The Secretary."

Bombay Cotton Control Act, 1935.

14. "That the Indian Central Cotton Committee notes with satisfaction the expeditious manner in which the Bombay Cotton Control Act was passed by the Legislative Council. It is confident that this piece of legislation will go a long way towards improving the quality of cotton of the Surat tract where Goghari has been spreading and the benefit to the grower expected from the Act will soon be realised."

Fumigation of American cotton.

15. "That the recommendation of the Standing Finance Sub-Committee that the Government of India be requested to make permanent the present fees for the fumigation of American cotton of Rs. 2-7 per square bale and of Re. 1-8 per round bale be approved."

Half-yearly Report of the Publicity and Propaganda Officer.

16. "That the half-yearly report of the Publicity and Propaganda Officer be approved."

Progress Report of the Director, Technological Laboratory.

17. "That the Progress Report of the Director, Technological Laboratory, be approved."

Report of the Technological Research Sub-Committee.

18. "That the Report of the Technological Research Sub-Committee be adopted."

Report of the Research Students Selection Sub-Committee.

19. "That the Report of the Research Students Selection Sub-Committee be confirmed."

Report of the Special Sub-Committee to consider the question of a wider market for Indian cotton.

20. "That the Report of the Special Sub-Committee to consider the question of a Wider Market for Indian cotton be adopted."

Fall in the exports of Indian cotton to China.

21. "This Committee desires to request the President to bring to the notice of the Government of India the great necessity of their devising necessary means without delay to ensure that Indian cotton is not cut out from foreign countries owing to changed financial and other economic conditions in such countries."

Report of the Agricultural Research Sub-Committee.

22. "That the Report of the Agricultural Research Sub-Committee be adopted."

Bombay Cotton Ginning and Pressing Factories (Amendment) Bill.

23. "The Indian Central Cotton Committee congratulates the Bombay Government for the rapid progress they have made with the introduction of the Bombay Cotton Ginning and Pressing Factories (Amendment) Bill in the Bombay Legislative Council."

Central Provinces Cotton Ginning and Pressing Factories (Amendment) Bill.

24. "The Indian Central Cotton Committee endorses the recommendation of the Local Sub-Committee regarding the detailed provisions in the Central Provinces Cotton Ginning and Pressing Factories (Amendment) Bill for dealing with watering, excessive seed, introduction of extraneous matter and mixing of different kinds of cotton"

Mixing of old cotton and mill droppings, etc., in new crop cotton at Dhulia, Bombay Presidency.

25. "The Committee resolves that the complaint from Dhulia be reported to the Government of Bombay for effective prevention of this sort of malpractices reported by means of the Bombay Cotton Ginning and Pressing Factories (Amendment) Act."

Report of the Cotton Forecast Improvement Sub-Committee.

26. "That the Report of the Cotton Forecast Improvement Sub-Committee be adopted."

Report of the Sub-Committee appointed to work out details for holding a Conference of Scientific Workers.

27. "That the Report of the Sub-Committee appointed to work out details for holding a Conference of Scientific workers, as amended, be adopted."

Report of the Standing Finance Sub-Committee

28. "That the Report of the Standing Finance Sub-Committee be adopted.

That the Revised Estimates for 1935-36 be approved That the Budget for 1936-37 as amended at this meeting of the Indian Central Cotton Committee be sanctioned.

That Messrs. S. B. Billimoria & Co. be reappointed Auditors for the year 1936-37 on a remuneration of Rs. 750."

Form of Abstract Proceedings of meetings of the Committee

29. "That the suggestion made by the President be approved

APPENDIX I.

SUBJECT 7.—*Bombay Cotton Control Act, 1935.*

Secretary's Note.

The Committee at its meeting in August last considered the draft of the Bombay Cotton Control Bill to prohibit the cultivation and handling of Goghari cotton in the Navsari cotton tract, and passed the following resolution :—

"The Indian Central Cotton Committee welcomes the Bombay Cotton Control Bill which the Bombay Government propose to introduce in the Local Legislative Council. The Committee is convinced that unless legislative action of this nature is taken Goghari cotton will spread rapidly in the Surat tract and ruin the reputation of the cotton growers of the tract affected."

The Bill was introduced in the Bombay Legislative Council in September last and was passed in November last. A copy of the Act as passed is attached.

The only changes between the Act as passed and the draft Bill considered by the Committee are given below :—

Section 4.

(*i*) the word "*knowingly*" has been added in the first line of section 4 of the Act.

(*ii*) clauses 4 (*a*) and (*b*) of the draft Bill considered by the Committee read as follows :—

(*a*) cultivates or *attempts to cultivate* Goghari cotton *pure or mixed* shall, on conviction, be punishable with fine which may extend to rupees twenty for every first offence and to rupees fifty for every subsequent offence,

(*b*) (*i*) mixes or attempts to mix Goghari cotton with any other cotton, or

(*ii*) possesses, uses or trades in, *or attempts to possess, use or trade in* Goghari cotton or any other cotton mixed with Goghari cotton,

shall, on conviction, be punishable with fine which may extend to rupees five hundred for every first offence and to rupees one thousand for every subsequent offence.

In the Act as passed, the words *italicised* above have been omitted and in clause (*b*) (*i*) the words "attempts to mix" have been replaced by the words "causes to be mixed."

Section 8.

In sub-section 2 (*a*) the words "or second" are additions.

P. H. RAMA REDDI.

ACT NO. OF 1935.

An Act to provide for the prohibition of the cultivation of Goghari cotton and the mixing of such cotton with other cotton and for the prohibition or restriction of the possession or use of, or trade in, Goghari cotton or cotton mixed with Goghari cotton.

(As read for the third time and passed on the 25th November 1935.)

WHEREAS it is expedient in the best interests of the growers of cotton in certain areas in the Presidency of Bombay, the cotton trade and the economic prosperity of the said Presidency to maintain the quality and reputation of the cotton grown in those areas and for that purpose to prohibit the cultivation of Goghari cotton and the mixing of such cotton with other cotton and to prohibit or restrict the possession or use of, or trade in, Goghari cotton or cotton mixed with Goghari cotton;

And whereas the previous sanction of the Governor-General required by sub-section (3) of section 80A of the Government of India Act and the previous sanction

of the Governor required by section 80C of the said Act have been obtained for the passing of this Act, It is hereby enacted as follows —

Short title and extent

1. (1) This Act may be called the Bombay Cotton Control Act, 1935

(2) It extends to the whole of the Presidency of Bombay.

Definitions

2 In this Act, unless there is anything repugnant in the subject or context—

(a) "Cotton" includes cotton plant, ginned and unginned cotton, cotton waste and cotton seed;

(b) "Director of Agriculture" means the officer appointed for the time being to be the Director of Agriculture,

(c) "Goghari cotton" means the kind of cotton known as *Gossypium herbaceum* (*Variety Goghari*), and

(d) "Controlled area" means an area specified in a notification under section 3

Power to issue notification prohibiting the cultivation, *etc*, of Goghari cotton

3 The local Government may, by notification in the *Bombay Government Gazette* in such local area and for such period as may be specified in the notification—

(a) prohibit the cultivation of Goghari cotton; or

(b) prohibit the mixing of Goghari cotton with any other cotton; or

(c) prohibit or restrict the possession or use of, or trade in, Goghari cotton or any other cotton mixed with Goghari cotton.

Penalty

4 Any person, who, knowingly in contravention of the provisions of this Act or of any notification issued under section 3 or rule made under section 14—

(a) cultivates Goghari cotton shall, on conviction, be punishable with fine which may extend to rupees twenty for the first offence and to rupees fifty for every subsequent offence,

(b) (i) mixes or causes to be mixed Goghari cotton with any other cotton, or

(ii) possesses, uses or trades in Goghari cotton or any other cotton mixed with Goghari cotton shall, on conviction, be punishable with fine which may extend to rupees five hundred for the first offence and to rupees one thousand for every subsequent offence

Confiscation

5 Whenever an offence under this Act has been committed, all cotton in respect of which the offence has been committed and every box, receptacle, package or covering in which such cotton is contained shall be liable to confiscation.

Procedure in confiscation

6 (1) When in any case tried by a criminal Court, the Court decides that anything is liable to confiscation under section 5, he may after hearing the person, if any, claiming any right thereto and the evidence, if any, which he produces in support of his claim, order confiscation

(2) When an offence under this Act has been committed and the offender is not known or cannot be found or when anything liable to confiscation under this Act is found and is not claimed by any person, the officer authorised by the Local Government in this behalf may hold an inquiry and may order confiscation

Provided that no such order shall be made before the expiration of one month from the date of seizing the thing liable to confiscation or without hearing the person, if any, claiming any right thereto and the evidence, if any which he produces in support of his claim.

Compounding

7. (1) The officer authorised under sub-section (2) of section 6 may accept from any person who is reasonably suspected of having committed an offence under section 4, a sum of money as may be prescribed by rules made under section 14 by way of composition for such offence

(2) On payment of such sum, such person, if in custody, shall be set at liberty and if proceedings in any criminal Court [illegible] against such person in respect of such offence, the con[illegible] [illegible] to a[illegible]unt to an acquittal and no further proceedings sh[illegible] of such offence.

(3) Notwithstanding anything contained in sub-section (2), it shall be lawful for the court or the officer authorised under sub-section (2) of section 6 to order confiscation of anything liable to confiscation under section 5.

Power of entry and seizure.

8. (1) Any officer authorised in this behalf by the Local Government may between the hours of 6 a.m. and 6 p.m.—

(a) enter upon any land in a controlled area in which he knows or has reason to believe that Goghari cotton has been or is being cultivated in contravention of a notification under section 3, uproot or cause to be uprooted such cotton, and seize the cotton so uprooted; or

(b) enter upon or into any land, building, ship, vessel, vehicle or place in a controlled area in which he knows or has reason to believe that Goghari cotton or any other cotton mixed with Goghari cotton is kept in contravention of a notification under section 3, and seize such cotton.

(2) Every officer seizing any cotton under this section shall forthwith—

(a) make a report of such seizure to the nearest Magistrate of the First or Second Class having jurisdiction to try the offence committed in respect of such cotton, specifying in such report the particulars of such cotton, and furnish a copy of such particulars to the occupier, or person in charge of the land, building, ship, vessel, vehicle or place on or in which such seizure was made, and

(b) subject to rules made under section 14, forward such cotton to the nearest officer authorised by the local Government to receive it, for examination and for report to the Director of Agriculture.

(3) The opinion of the officer authorised under sub-section (2) regarding such cotton recorded in any document signed by such officer shall be evidence as to the nature of such cotton in any inquiry, trial or proceeding under this Act.

Duty of owner, occupier and person in charge to give facilities for inspection by authorised officer.

9. (1) Every owner, occupier or person in charge, of any land, building, ship, vessel, vehicle or place shall give all reasonable facilities to the officer, authorised under sub-section (1) of section 8, to inspect such land, building, ship, vessel, vehicle or place.

(2) Any person who contravenes the provisions of sub-section (1), shall, on conviction, be punishable with fine which may extend to rupees twenty.

Previous sanction and limitation for prosecution.

10. No prosecution under this Act shall be instituted without the previous sanction of the Director of Agriculture.

Cognizance of offences.

11. No criminal Court inferior to that of a Presidency Magistrate or a Magistrate of the Second Class shall try any offence under this Act.

Protection for acts done under the Act.

12. No suit, prosecution or other legal proceeding shall be instituted against any person for anything which is in good faith done or intended to be done under this Act.

Officer acting under the Act to be public servant.

13. Every officer acting or purporting to act in pursuance of the provisions of this Act shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code.

Rules.

14. (1) The Local Government may make rules not inconsistent with the provisions of this Act for the purpose of carrying into effect the purposes of this Act.

(2) In particular and without prejudice to the generality of the foregoing provision, the Local Government may make rules for all or any of the following purposes, namely :—

(a) to prescribe the sum of money to be paid by way of composition under section 7 ;

(b) to prescribe the conditions subject to which cotton seized may be forwarded under section 8 ;

(c) any other matter which is to be or may be prescribed.

(3) Any such rule may provide that a contravention thereof shall be punishable with fine which may extend to rupees fifty.

(4) The rules made under this section shall be subject to the condition of previous publication in the *Bombay Government Gazette*

(5) Rules made under this section shall be laid upon the table of the Bombay Legislative Council at the session of the said Council next following and shall be liable to be modified or rescinded by a resolution of the said Council and such rule shall after notification of such resolution in the *Bombay Government Gazette* be deemed to have been modified or rescinded accordingly :

Provided that when in the opinion of the Governor-in-Council such modification or rescission is likely to defeat or frustrate any of the purposes of this Act, the Governor in Council may by notification in the *Bombay Government Gazette* declare that the modification or rescission shall have no effect and thereupon the rules shall remain in force as if they had not been modified or rescinded.

APPENDIX II

SUBJECT 8 —*The Cotton Ginning and Pressing Factories Act—*

(*a*) *Bombay Amendment Bill.*
(*b*) *Central Provinces Amendment Bill*

Secretary's Note.

At its last meeting the Committee considered a letter from the ...

... respective Local Councils of the Governments concerned are attached The Bombay Bill has been referred to a Select Committee and the Central Provinces Bill has been circulated for eliciting opinion thereon

(*a*) *Bombay Amendment Bill.*

The Local Sub-Committee at two of its meetings considered the draft bill to amend ...

(*b*) *Central Provinces Amendment Bill.*

This Bill was considered by the Local Sub-Committee in October last and the following conclusions arrived at have been communicated to the Central Provinces Government —

1. The onus should lie on the factory owner to prove that the *kapas* or cotton complained of is not his property. If he establishes satisfactorily the ownership of cotton, proceedings should be taken against such owner.

2. The Central Provinces Government should be recommended to accept clause 4 of the Bombay Bill (as published) in place of clause 3 of the Central ... varding letter should inform the Central ... n Central Cotton Committee has no ... or admixture in cotton and that it is ... ould be prescribed by rule and not speci- ned in the Act.

3. The inspecting authority should not be below the rank of a Sub-Divisional Officer, if a revenue officer, or an Extra Assistant Director of Agriculture, if an agricultural officer. ... pectors ... lombay ... ian the ... Central

Cotton Committee, in order that he might act by *taking possession of the cotton* or by recording press marks and/or tracing the ownership of the cotton concerned thus enabling the Central Provinces Government to take action against the culprit under the Act. Provision should be made to this effect in the rules under the Act.

5. A copy of the Bombay Bill as printed, and as it is to be introduced, should be enclosed with the general observation that this draft is as revised after discussion with the Local Sub-Committee and embodies a number of recommendations. In particular the Sub-Committee strongly advises that the clause dealing with mixing should be a separate one as in the Bombay Bill, and that this subsection should only be brought into operation in specified areas where *Verum* cotton (or other improved variety) is cultivated on a really substantial scale.

P. H. Rama Reddi.

BILL No. XLV of 1935.

A Bill to amend the Cotton Ginning and Pressing Factories Act, 1925, *in its application to the Presidency of Bombay.*

(As read for the first time on 22nd November 1935.)

Whereas it is expedient to amend the Cotton Ginning and Pressing Factories Act, 1925*, in its application to the Presidency of Bombay for the purposes hereinafter appearing; And whereas the previous sanction of the Governor-General required under sub-section (3)† of section 80A and the previous sanction of the Governor required under section 80C of the Government of India Act have been obtained for the passing of this Act; It is hereby enacted as follows:—

Short title, extent and commencement.

1. (1) This Act may be called the Cotton Ginning and Pressing Factories (Bombay Amendment) Act, 1935.

(2) This Act shall extend in the first instance to the Province of Sind or such area in the said Province with effect from such date as the Local Government may by notification in the *Bombay Government Gazette* appoint. The Local Government may by notification in the *Bombay Government Gazette* extend the provisions of this Act to any other area with effect from such date as the Local Government may appoint in the said notification.

Amendment of section 2 of Act XII of 1925.

2. In section 2 of the Cotton Ginning and Pressing Factories Act, 1925*, hereinafter called the said Act—

(1) after the word, comma and dash "context—" the following shall be inserted, namely:—

"(*aa*) 'Admixture of cotton' means mixture of different varieties of cotton";

and

(2) after clause (*f*) the following clause shall be inserted, namely:—

"(*ff*) 'licence' means a licence granted under section 2A."

Insertion of section 2A in Act XII of 1925.

3. After section 2 of the said Act, the following section shall be inserted, namely:—

License for working cotton ginning factory or cotton pressing factory.

"2A. (1) No cotton ginning factory or cotton pressing factory shall be worked without a licence granted to the owner thereof by such authority, in such form, subject to such conditions and on payment of such fee, as may be prescribed.

(2) No licence for which the prescribed fee has been paid shall be refused except on the ground that the owner or person in charge of a cotton ginning or pressing factory in respect of which the licence is applied for has been convicted of an offence punishable under this Act and no licence shall be suspended, withdrawn or cancelled unless the owner or person in charge of the cotton ginning or cotton pressing factory in respect of which the licence was granted has been convicted for an offence punishable under this Act.

(3) If any person works a cotton ginning or cotton pressing factory in respect of which a licence has not been granted or has been suspended, withdrawn or cancelled, such person shall, on conviction, be punishable with fine which may extend to five hundred rupees or, if he has been previously convicted of any offence under this sub-section, to fifteen hundred rupees."

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* XII of 1925.

† 5 & 6, Geo. V, c. 61.

Insertion of new sections 3A, 3B and 3C in Act XII of 1925

4 After section 3 of the said Act, the following ne sections shall be inserted, namely :—

Prohibition against watering, etc, of cotton

"3A. (1) No cotton which is ginned or pressed in a cotto ginning or cotton pressing factory shall—

(a) be watered,

(b) contain any seed in excess of the prescribed proportion or

(c) contain any foreign substance.

(2) The Local Government

in a cotton ... of a cotton ginning or cotton pressing factory or any person ... any admixture of cotton in charge of such a factory—

(a) who knowing or having ... or conta... gins

(b)

gins ... or allows to be ... in the notification under sub-section (2) has reason to believe to contain an admixture of cotton, shall, on conviction be punishable with fine which may extend to fifteen hundred rupees

(4) Any owner of cotton who knowingly contravenes any of the provisions of sub-section (1) or (2) in respect of such cotton, or abets, or knowingly allows or connives at, such contravention shall, on conviction, be punishable with fine which may extend to fifteen hundred rupees

Explanation —For the purposes of this section, cotton shall not be deemed to be watered, unless such cotton contains moisture in excess of the normal quantity. The normal quantity of moisture in any given quantity of cotton is the amount of moisture that such cotton is reasonably expected to have, regard being had to the place or places at or to which, and the time or times of the year in which, such cotton has been picked, collected, stored, conveyed, left, ginned or pressed. A certificate given by the prescribed authority as to the normal quantity of moisture that a given quantity of such cotton should have and the quantity of moisture that it possesses shall be evidence of such matters, until the contrary is proved, and if the latter quantity exceeds the former it shall be evidence, until the contrary is proved, that the cotton is watered.

Examination of cotton, packages or bales

3B. (1) The Local Government or any officer authorised by it in this behalf may on its or his own motion or on receipt of a complaint that there has been a contravention of the provisions of section 3A in respect of any cotton, package or of any bale and in the case of a complaint, on payment of the prescribed fee by the complainant, cause such cotton or the contents of such package or bale to be examined by the prescribed person or body.

(2) A certificate given by such person after examination of the contents of any bale under sub-section (1) shall be admissible in evidence and be presumptive proof of the facts mentioned therein until the contrary is proved.

Entry and inspection.

3C (1) The Local Government may authorise any officer to enter into and inspect, at any reasonable time, any cotton ginning or cotton pressing factory for the purpose of ascertaining whether there is any contravention therein of any of the provisions of this Act or of any rule made thereunder or of any of the conditions subject to which a licence has been granted in respect of such factory and to seize all things in respect of which an offence punishable under this Act appears to have been committed.

(2) The owner or the person in charge of every cotton ginning or cotton pressing factory shall give every reasonable assistance to the inspecting officer in the performance of his duties under sub-section (1).

(3) The owner or the person in charge of such factory shall, in every instance be permitted to attend during the inspection and the things seized d inspection shall be sealed in the prescribed manner."

Amendment of section 5 of Act XII of 1925.

5. For section 5 of the said Act, the following section shall be substituted, namely :—

"5. (1) The owner of every cotton ginning factory shall submit to the prescribed authority, within such time and in such form, as may be prescribed, weekly returns showing the quantity of cotton ginned in the factory during the preceding week and from the commencement of the season to the end of that week.

Returns.

(2) The owner of every cotton pressing factory shall submit to the prescribed authority, within such time and in such form, as may be prescribed, weekly returns showing the total number of bales of cotton pressed during the preceding week and from the commencement of the season to the end of that week, and the approximate average net weight of the bales pressed in that week.

(3) The Local Government shall compile from the weekly returns submitted under sub-section (2), and shall publish in such manner as the Governor-General in Council may direct, a statement showing the total number of bales pressed in the province during the week and from the commencement of the season to the end of the week to which the returns relate :

Provided that the number of bales pressed in any individual factory shall not be published.

(4) If default is made in submitting any return as required by sub-section (1) or sub-section (2), the owner of the factory shall, on conviction, be punishable with fine which may extend to fifty rupees.

(5) Where the owner of a cotton ginning or cotton pressing factory has notified to the prescribed authority that the work of ginning cotton or pressing bales in that factory has been suspended, it shall not be necessary for the owner to submit returns under sub-section (1) or sub-section (2) until such work has been resumed.

Explanation.—In this section 'season' means the period notified in this behalf by the Local Government in local official *Gazette*."

Amendment of section 6 of Act XII of 1925.

6. In section 6 of the said Act, after the words "other than" the words and figures "the standard weights and measures, weighing and measuring instruments authorised under the Bombay Weights and Measures Act, 1932,* in districts or areas in which Parts II, III, V and VI of that Act are in force or elsewhere other than" shall be inserted.

Amendment of section 7 of Act XII of 1925.

6A. In sub-section (1) of section 7 of the said Act, after the words "for the purpose of sections" insert the figures and letters "3A, 3C."

Amendment of section 13 of Act XII of 1925.

7. In section 13 of the said Act, after clause (*a*), the following clauses shall be inserted, namely :—

"(*aa*) the authority by whom the form in which, the conditions subject to which and the fees on payment of which, a licence may be granted under sub-section (1) of section 2-A ;

(*ab*) the proportion of seed which may be contained in cotton ;

(*ac*) the person authorised to give a certificate regarding the quantity of moisture contained in any cotton and other matters specified in section 3A ;

(*ad*) the person authorised to examine bales under section 3B ;

(*ae*) the procedure for making a complaint and causing the contents of a bale to be examined and the fee for examination of the contents of a bale under sub-section (1) of section 3B ;

(*af*) the manner in which the things seized shall be sealed under section 3C."

Addition of sections 16 and 17 in Act XII of 1925.

8. After section 15 of the said Act, the following sections shall be added, namely :—

"16. Whoever contravenes any of the provisions of this Act or any rule made thereunder or any of the conditions subject to which a licence has been granted to him shall, on conviction, if no other penalty is already provided in this Act for such contravention, be punishable with fine which may extend to five hundred rupees or, if he has previously been convicted of an offence under this Act or any rule made thereunder, with fine which may extend to fifteen hundred rupees.

Penalty.

* Bom. XV of 1932.

17. (1) The officer authorised by the Local Government in this behalf may accept from any person whose licence is liable to be suspended, withdrawn or cancelled under this Act, or who is reasonably suspected of having committed an offence under this Act, a sum of money in lieu of such suspension, withdrawal or cancellation or by way of composition for the offence which may have been committed, as the case may be.

Compounding offences, etc

(2) On payment by such person of such sum to such officer, such person if in custody shall be set at liberty and if criminal proceedings shall have been instituted against such person, the composition shall be held to amount to an acquittal."

9. In sub-sections (5) and (6) of section 3 ...

Amendment of sections 3, 4, 6, 7, 8 and 9 of Act XII of 1925

on conviction, be punishable" shall be substituted

STATEMENT OF OBJECTS AND REASONS.

The Cotton Ginning and Pressing Factories Act, 1925, was passed for the purpose of providing for the maintenance of registers by both kinds of factories and the ...

maintained and the cotton grower is to get an adequate price for superior cotton are —(1) watering of cotton, (2) mixing of different varieties of cotton, (3) false packing In consequence of these malpractices, the reputation of superior cottons has suffered considerably and it has been from time to time suggested to Govern-...

Notes on Clauses.

Clause 1.—As stated above it is proposed to extend the Act to Sind or to a portion thereof in the first instance. Power is left to Government to extend it to other parts of the Presidency, if it is considered desirable to do so.

Clause 3 —This clause requires the owners of cotton ginning and pressing factories to take out licences for working the factories. Failure to take out a licence is made punishable.

Clause 4.—This clause provides ... watered, c... substance. prevent ad... should have the power to declare that no cotton which contains admixture shall be ginned or pressed in that area.

New section 3B proposed to be inserted ...

... inspection

Clause 5 —This clause amends section 5 of the principal Act and requires the owners of cotton ginning factories also to submit returns.

Clause 6 —This clause amends section 6 of the principal Act and makes it consistent with the Bombay Weights and Measures Act, 1932

Clause 7.—This is a rule making clause.

Clause 8 —This clause provides for penalties for any contravention of any provisions of the Act or the rules thereunder, where no specific penalty has been provided for The clause allows for the composition of offences.

1st October 1935.

R. D. BELL.

[To be introduced in the Central Provinces Legislative Council.]

CENTRAL PROVINCES BILL No. 33 OF 1935.

THE COTTON GINNING AND PRESSING FACTORIES (CENTRAL PROVINCES AMENDMENT) BILL, 1935.

A Bill to amend the Cotton Ginning and Pressing Factories Act, 1925, in its application to the Central Provinces.*

Preamble.

WHEREAS it is expedient to amend the Cotton Ginning and Pressing Factories Act, 1925,* in its application to the Central Provinces, in manner hereinafter appearing;

AND WHEREAS the previous sanction of the Governor-General required under sub-section (3) of section 80A of the Government of India Act has been obtained to the passing of this Act;

It is hereby enacted as follows:—

Short title and commencement.

1. (1) This Act may be called the Cotton Ginning and Pressing Factories (Central Provinces Amendment) Act, 1935.

(2) It shall come into force on such date as the Local Government may, by notification, appoint in this behalf.

Insertion of section 2-A in Act XII of 1925.

2. After section 2 of the Cotton Ginning and Pressing Factories Act, 1925* (hereinafter referred to as the said Act), the following section shall be inserted, namely:—

License for working cotton ginning factory or cotton pressing factory.

"2A. (1) No cotton ginning factory or cotton pressing factory situate in the Central Provinces shall be worked without a licence from the Local Government in such form and subject to such conditions as may be prescribed.

(2) Whoever contravenes the provision of sub-section (1) shall be punishable with fine which may extend to five hundred rupees or, if he has previously been convicted of an offence under sub-section (1), to fifteen hundred rupees.

(3) No licence for which the prescribed fee has been paid shall be refused, suspended or cancelled except on the ground that the owner or person in charge of the factory concerned has been convicted for the contravention of the provisions of section 3A."

Insertion of sections 3-A, 3-B and 3-C in Act XII of 1925.

3. After section 3 of the said Act, the following sections shall be inserted, namely:—

Liability for proper packing of bales.

"3A. The owner or the person in charge of every cotton pressing factory shall be responsible for seeing that—

(a) no ginned cotton is watered at the time of pressing into a bale in the factory;

(b) no ginned cotton, which is pressed into a bale in the factory, contains seed or moisture in excess of the prescribed proportion;

(c) no bale pressed in the factory contains any admixture of cotton without specifying the fact conspicuously on the outside of the bale in the prescribed manner; and

(d) no bale pressed in the factory contains any substance other than cotton.

Examination of bales.

3B. (1) Subject to rules made under this Act, the Local Government or any officer authorized by it in this behalf may, on receipt of a complaint that there has been, or is suspected to have been, a contravention of the provisions of section 3A in respect of any bale and on payment of the prescribed fee by the complainant, cause the contents of such bale to be examined by the Indian Central Cotton Committee or the East India Cotton Association.

(2) A certificate given by the said Committee or Association after examination of the contents of any bale under sub-section (1) shall be deemed to be conclusive proof of the facts mentioned therein and shall be admissible in evidence.

*XII of 1925.

3C. (1) The Local Government may authorize any officer to enter into and inspect, at any reasonable time, any cotton ginning factory or cotton pressing factory for the purpose of ascertaining whether there is any contravention of any of the provisions of this Act therein.

Entry and inspection.

(2) The owner or the person in charge of every cotton ginning factory or cotton pressing factory shall give every reasonable assistance to the inspecting officer in the performance of his duties under sub-section (1)."

Amendment of section 5, Act XII of 1925.

4. For section 5 of the said Act, the following section shall be substituted, namely :—

"5. (1) The owner of every cotton ginning factory shall submit to the prescribed authority, within such time and in such form, as may be prescribed, weekly returns showing the quantity of cotton ginned in the factory during the preceding week and from the commencement of the season to the end of that week.

Returns.

(3) The Local Government shall compile from the weekly returns submitted

Provided that the number of bales pressed in any individual factory shall not be published.

(4) If default is made in submitting any return as required by sub-section (1) or sub-section (2), the owner of the factory shall be punishable with fine which may extend to fifty rupees.

resumed.

Explanation.—In this section 'season' means the period notified in this behalf by the Local Government in the local official *Gazette*."

Amendment of section 13, Act XII of 1925.

5. In section 13 of the said Act, after clause (*a*), the following clauses shall be inserted, namely :—

"(*aa*) the form and conditions of a licence to be granted under sub-section (1) of section 2A ;

(*ab*) the proportion of seed or moisture which may be contained in ginned cotton and the manner for specifying the fact of any admixture of cotton on the outside of a bale under section 3A ;

(*ac*) the procedure for making a complaint and causing the contents of a bale to be examined and the fee for examination of the contents of a bale under sub-section (1) of section 3B."

Addition of section 16, Act XII of 1925.

6. After section 15 of the said Act, the following section shall be added, namely :—

"16. Whoever contravenes any of the provisions of this Act or of ... thereunder shall, if ... Act for such contr... extend to five hundred rupees or ... offence under this Act or any rule ... to fifteen hundred rupees"

Penalty

STATEMENT OF OBJECTS AND REASONS.

The object of the Bill is to check certain malpractices like watering and mixing of cotton and false packing of bales which are reported to be prevalent on a growing scale in the cotton ginning and pressing factories of the province. The reputation ,

and with it the price, of the local cotton are already said to have suffered in consequence of these fraudulent practices, and if they remain unchecked there is an imminent danger of the cotton from the province coming into permanent disrepute and of the interest of the cotton grower suffering irretrievably. Legislation for the purpose is strongly advocated by both the Provincial and the Indian Central Cotton Committee as well as the Central Provinces Board of Agriculture. The Bill has been framed on the lines recommended by these bodies.

2. The opportunity is also being taken of prescribing returns of cotton ginned by the factories. These returns have recently been prescribed by rules, but it is considered desirable to prescribe them in the Act itself.

NAGPUR :
The 8th August 1935.

E. GORDON,
Member in Charge.

APPENDIX III.

SUBJECT 11.—*Half-yearly Report of the Publicity and Propaganda Officer.*

With the half-year under report, the Publicity and Propaganda Department of the Indian Central Cotton Committee enters upon the fourth year of its career and it may now be opportune to glance at the items of the Department's activities during this period in order to bring out the main purpose of the scheme and to point out how far it has been achieved. The Department has directed its efforts along two main channels: firstly, wide press publicity both in India and abroad for disseminating knowledge of improvements effected in the quality of Indian cottons; and secondly, vigorous field propaganda by the Publicity Officer in person in collaboration with Provincial Departments of Agriculture, in furtherance of regional campaigns for dealing with specific cotton problems. Under the first category fall Committee's varied schemes both scientific and practical so that the interested public could lay its hands on them quickly and easily. In the second group are included propaganda tours in different provinces of India to carry the fruits of experimental work to the grower and other interests concerned.

Publicity.

The Press *Communiques* issued by the Department are supplied to the Press through the Associated Press of India, Bombay, which has branches all over the country. Through this news agency a constant stream of informational material is kept flowing. But the contact between the Press in India and the Publicity Department is not confined to mere distribution of Publicity material through this agency but is extended to close personal touch with the editors of leading dailies in the country. The Press outside India is reached directly by the Department. The fact that prominent newspapers of countries like Great Britain, Italy, Germany, U.S.A., East and South Africa, Australia, China, Japan, Egypt, Iraq, Malaya and Ceylon readily allot their columns to the Press *Communiques* of the Department and often write editorial comments on them shows the extent of the interest taken in the Committee's activities. The voluminous files kept in the Publicity Department of cuttings from the world's press reflect the importance attached to the Committee's work. These cuttings run into thousands of pages devoted to the most varied subjects relating to the cotton industry in India and the important role which the Indian Central Cotton Committee is playing in its development.

Publicity Literature.

This, however, represents only a part of the publicity material broadcast by the Department. Illustrated pamphlets, leaflets, bulletins, brochures, etc., have formed an equally important medium, through which information of more detailed technical character is made available to the interested public in a readable form. A comprehensive series of this class of literature—23 in number—embodying the results of scientific research schemes on various problems of cotton has been published so far.

Propaganda.

Propaganda tours undertaken by the Publicity Officer in order to demonstrate to the eye and mind of the cultivator the results of cotton researches and to show how far they are improvements on existing methods have extended to many parts of India. They include visits in connection with propaganda campaigns such as the Broach clean-up campaign, campaign for the popularising of cotton cultivation

in the Barrage areas of Sind; encouraging Jayawant in preference to the local Kumpta variety in the Dharwar District of the Bombay Presidency, campaign associated with the extension of the Pink Boll-worm control measures in the United Provinces and the latest campaign for the elimination of the inferior Goghari from the Surat tract. Besides these, study tours have also been undertaken in the Punjab and Central Province [illegible] to impress upon the owners of [illegible] submitting Weekly Press Returns [illegible] pressed during the preceding week [illegible] to the end of the week, regularly and punctually.

Exhibitions and Shows.

The Publicity and Propaganda Department took part during the first three years in the following Exhibitions :—

(1) [illegible] Improvement Show,
(2) [illegible]
(3) [illegible]
(4) [illegible]
(5) [illegible]
(6) [illegible]
(7) The Chikodi Agricultural Show, and
(8) Agricultural Exhibition at Nanded

Suitable propaganda material supported by specimens of improved types of Indian cottons and yarn exhibits prepared at the Central Cotton Committee's [illegible]

and practice and enabled him to apply knowledge to the solution of his own problems

Enquiries.

A large number of enquiries were made and attended to by the Publicity Department of the Committee from this country as well as from abroad, from [illegible] rns Its help has [illegible] ed on the latest [illegible] the improvement [illegible] e belief that the widening of informational service has attracted increasing attention from both the trade and the general public, here and abroad

Notable events during the half-year under Report.

The half-year under review was distinguished by a determined drive initiated by the Department of Agriculture, Bombay, with the Committee's active co-operation to eliminate the inferior cotton known as Goghari from the Surat tract. This type of cotton has been found to be undesirable not only in itself but also because it [illegible] thereby spoiling the reputation [illegible] ited efforts of the [illegible] 'otton Committee [illegible] with only partial [illegible] success was the higher ginning [illegible] The trader encouraged mixing [illegible]

mixing of such cottons with other cottons, etc, etc, which has since become law.

In the work of securing the support of the members of the Bombay Legislative Council for the measure, the Publicity Department played its part. An illustrated pamphlet, a hand bill and a special article were prepared and distributed to the members at Poona and at the extended session of the Council in Bombay. [illegible] *Times of India*, the *Bombay Chronicle* and local vernacular papers evinced interest in this important measure and published the special article on the [illegible] The *Times of India* made appreciative editorial comment [illegible] the Department's unceasing campaign for educating the [illegible] the urgent need for the measure.

Council Hall Demonstration.

A special demonstration was staged in a large *shamiana* in the compound of the Council Hall at Poona. Samples of 1027 A.L.F., Goghari and mixed *kapas*; yarn exhibits, etc., prepared at the Committee's Technological Laboratory at Matunga, were placed on view, together with Baer patterns of 1027 A.L.F., Goghari and mixture, combed halos of 1027 A.L.F. and Goghari and photos, charts, graphs, diagrams, pictures, etc., showing the characters and monetary value of the two varieties as well as of their mixture. The demonstration was organised in a manner calculated to please as well as instruct at a time when the session of the Legislative Council was in progress and was acknowledged to be a source of enlightenment and profit to the members representing agricultural, trade and industrial interests. Official and non-official members freely asked questions which were adequately answered.

A similar demonstration, although on a smaller scale, was held at the extended session of the Council in Bombay which finally passed the measure into law.

Press Communiques.

Work in this direction continued to make progress. A new series of *communiques* on the following subjects received wide publicity in a large number of newspapers and journals in all parts of India and abroad.

(1) *Elimination of Goghari cotton from Surat tract.*—This press *communique* was issued to bring home to the members of the Bombay Legislative Council, the agriculturists in Surat and the trade in general the necessity for the eradication of Goghari cotton from the Surat tract, in view of the great damage done to the reputation of the superior variety 1027 A.L.F. by the mixing of both the varieties and passing the mixture off as genuine Navsari cotton. Legislative intervention was the only means of slavaging the reputation of the Navsari cotton. The Bill designed to secure this object came up before the last session of the Legislative Council.

(2) *Development of cotton cultivation in Sind.*—This was a review of the Annual Report of the Department of Agriculture in Sind for the year 1933-34 and recorded the great increase in the total area under cotton in Sind in the year 1933-34 as compared with the average acreage during the preceding ten years. This *communique* also gave a short description of the botanical research work conducted at Sakrand and at the Government Seed Farm, Mirpurkhas; of investigations conducted into the physiological aspect of cotton cultivation and of the activities of the Sind Cotton Extension Scheme, financed by the Indian Central Cotton Committee on the Left and Right Bank areas of the river Indus.

(3) *Combing of good quality Indian cottons.*—This press note gave a summary of the detailed experiments conducted at the Technological Laboratory, Matunga, on fibre length and irregularity. The results relating to four standard Indian cottons, viz., Punjab-American 289F, Cambodia Co. 1, Surat 1027 A.L.F. and Nandyal 14, were culled from the Technological Bulletin, Series A, No. 27 and were given special prominence in the review which was appropriately broadcast.

(4) *Development of cotton growing in Bombay Presidency.*—This *communique* reviewed work of cotton improvement accomplished by the Department of Agriculture, Bombay Presidency, during the year 1933-34. The rapid multiplication and distribution of improved varieties of cotton seed in various parts of the Presidency with financial assistance from the Indian Central Cotton Committee were also dealt with. Two notable steps taken by the Department to advance the cause of good cotton in Gujerat were, firstly the settlement of the controversy on the relative merits of 1027 A.L.F. *versus* 1A and the ultimate decision in favour of the former and secondly the drive to clear the Surat tract of Goghari cotton. Short descriptions were given of the working of the Gujerat Boll-worm Clean-up Scheme. The Khandesh Cotton Breeding Scheme and the Broach Cotton Breeding Scheme, all financed by the Indian Central Cotton Committee.

(5) *Facilities for training at the Technological Laboratory, Matunga.*—This was a press notification to invite applications for the two studentships for training in the elements of spinning and the routine methods of testing cotton fibre and yarn at the Technological Laboratory.

(6) *Amalner Cotton Market.*—Briefly described the working of the cotton market at Amalner in the Bombay Presidency, under the Bombay Cotton Markets Act, XIII of 1927, and the success achieved in helping and protecting the interests of the cultivator during the year 1934-35. The market works under the control of a Cotton Market Committee of 14 members with a Chairman.

(7) [illegible]

(8) *The 31st Half-yearly meeting of the Indian Central Cotton Committee.*—As usual, a *communique* was published giving a short report of the important discussions at the meeting of the Committee on the 19th and 20th August 1935.

Pamphlets.

In addition to press *communiques*, the Publicity and Propaganda Department published pamphlets, leaflets, etc, setting forth full results of study of a number of cotton problems. The pamphlets issued were :—

(1) "*Elimination of Goghari from the Surat tract will re-establish the reputation of Navsari cotton*"—When the question of elimination of Goghari cotton from the Surat tract was before the Bombay [illegible] was considered necessary that side by [illegible] be conducted to educate the representa[illegible] the [illegible]

[illegible] with Goghari, the disadvantages of mixing these two varieties and the views on the question of those affected by the evil of mixing.

(2) A Gujerathi version of this pamphlet was also brought out and adopted to propaganda in the Baroda State

(3) "[illegible]"—This is [illegible] urat Physiolo[illegible] 1934 on the Spotted Boll-worm in South Gujerat in order to study the life and habits of this important pest of cotton and the estimation of damage caused by it It also includes a summary of the clean-up campaign organised in the Broach district to determine the efficiency of control measures.

(4) "*The Indian Central Cotton Committee, its objects, activities and achievements*"—This pamphlet gives a comprehensive description of the Committee's varied activities and its achievements in the realm of legislation designed to promote the production, marketing and manufacture of Indian cottons and in the sphere of research. The *Bombay Chronicle* writing editorially said "the booklet is indispensable for those interested in the growth or manufacture of cotton"

Leaflets.

(1) The Gujerathi leaflet on the use of plant puller was reprinted a third time to meet increased demand from Baroda and other places

Hand-bills

(1) *The Plant Puller* hand-bill was also reprinted a third time in Gujerathi in order to meet heavy demand from the Director of Agriculture, Baroda

Posters

The idea of replacing the poster India's Bid for supremacy in World's Cotton Markets" with a different attractive design and the latest available figures is now in hand. To cope with the immediate demand for this poster a number of copies of the old edition were brought up to date and printed

A poster to help forward the campaign for the elimination of Goghari fro Surat tract is also under preparation.

Exhibitions.

(1) A notable event of the half-year was the Publicity Department's participation in the Rural Life Exhibition at Baroda which lasted for a week commencing from the 1st of January 1936. This Exhibition was organised in celebration of the Diamond Jubilee of H. H. the Maharaja of Baroda. The Viceroy, who was in Baroda on the occasion, honoured the organisers with a visit to the Exhibition. A number of cotton exhibits kindly placed at our disposal by the Director of the Technological Laboratory, a large number of photos and charts showing the superiority of 1027 A.L.F. cotton over Goghari, posters and other publications of the Publicity Department were on view at the Exhibition.

(2) *The Fair in Rajputana.*—In October last the Extension Officer of the Institute of Plant Industry, Indore, wrote to the Department to send copies of all maps, charts, etc., issued so far by the Publicity and Propaganda Department. These were required for purposes of demonstration and distribution at the Fair. Twenty copies each of the Luxmi poster in Hindi and Urdu, thirty copies in English and five copies each in Hindi and Urdu of the Pink Boll-worm pest of cotton poster were despatched to him along with 200 copies in Hindi of the leaflet on the Institute of Plant Industry in Indore, and some other publications of the Department.

(3) *Crop Demonstration in Amraoti and Yeotmal.*—At the request of the Extra Assistant Director of Agriculture, Amraoti, suitable propaganda literature was sent to him for use in connection with demonstrations of improved crops held in Amraoti and Yeotmal districts.

(4) *Fairs and Demonstrations in Warora, Central Provinces.*—Publications of the Department were also supplied to (1) the Agricultural Assistant, Warora, Central Provinces, and (2) the Deputy Director of Agriculture, Gujerat, in connection with village uplift work in several villages which were visited by H. E. the Governor of Bombay from the 19th to 22nd December 1935.

Increased demand for Publicity publications and greater number of enquiries.

The half-year now under review was remarkable for an increased demand for the publications of the Department as well as for special information bearing on the Committee's work. A large number of enquiries were received and attended to by the Department from this country as well as from abroad. The agencies which evinced interest in the publications of the Department included the Eastern News Agency, London, the Lancashire Indian Cotton Committee, Manchester, Universities of California and Berkeley. Local enquiries from many parts of India like Coimbatore, Berar, Indore, Jaipur City, Karachi, Amritsar and other places were also dealt with. From Madura Mr. Ponniah, Lecturer in the American College wrote for some of the publications of the Committee and also made several enquiries regarding the different aspects of the activities of the Committee with reference to the recommendations of the Indian Cotton Committee's report of 1919. In addition to supplying all the press *communiques* on Madras schemes and some other publications all his enquiries were replied to. Similar enquiries were received from other organisations and individuals in India.

Appreciation of Committee's work.

In assessing the value of the Committee's work, several newspapers, both in India and outside, have from time to time written in appreciative terms. For instance the *Times of India* commenting on His Excellency the Governor's address at the last half-yearly meeting of the Indian Central Cotton Committee in which His Excellency referred to the Lancashire's readiness to make more use of Indian cotton, if uniformity in quality was assured, observed as follows :—

"To this persistent publicity and propaganda are essential; the Indian Committee are awake to this need. Its Publicity and Propaganda Department has been instrumental in checking to some extent the evils formerly prevalent in the cotton trade. Particularly successful was its campaign for the elimination of the boll-worm pest in Surat, which adversely affected the quality of the local crop. Its task will be considerably lightened by the legislative measures shortly to be undertaken, and the result should be an appreciable improvement in both the quality and quantity of Indian cotton supplies. That in itself must justify the existence and labours of the Indian Central Cotton Committee."

R. D. Mihra.

APPENDIX IV.

SUBJECT 13.—*Summary of Proceedings of the Local Sub-Committee.*

Secretary's Note.

Three meetings of the Local Sub-Committee were held since the meeting of the Indian Central Cotton Committee in August 1935 Mr. M Durutti having resigned, his place on the Sub-Committee was taken by Mr. A [illegible]. Sarantides, who succeeded the former on the Committee

2. As desired by the Committee at its last meeting, the Sub-Committee considered the suggestion of Mr. Coleridge that an annual official meeting should be held in Liverpool between representatives of the Indian Central Cotton Committee who happened to be in England and the Directors of the Liverpool Cotton Association at which matters of common interest to both would be discussed The decision arrived at was that as Mr H C Short, Cotton Commissioner of the Lancashire Indian Cotton Committee, was fully competent to deal with all questions of this nature that might arise, there was no necessity of holding such meetings for the present The suggestion of Sir Bryce Burt that the services of Mr W. Ellis Jones, one of the ex-Vice-Presidents of the Committee, now permanently settled in Liverpool, should be utilised by the Committee as a link between itself and the Lancashire Indian Cotton Committee was also considered by the Sub-Committee and it was decided that it was unnecessary to requisition the services of Mr. Ellis Jones at present as the Lancashire Indian Cotton Committee had their Cotton Commissioner in India who was available for consultation here.

3. Complaints regarding watering of cotton, mixing and incorrect marking of bales and action taken thereon were considered and recorded by the Sub-Committee

4. At its meeting held on the 15th March 1935, the Sub-Committee considered a letter from Messrs. Volkart Brothers, Bombay, stating that short staple *kapas* from Rajputana was being imported by rail into Khandwa for purposes of mixing with the superior local cottons. A report was made to the Director of Agriculture, Central Provinces, who requested the Local Government to declare the districts of Nimar and Hoshangabad as protected areas under the Cotton Transport Act The Local Government have since issued the necessary notification declaring the above districts as protected areas under the Cotton Transport Act

5. The Standards Sub-Committee at its meeting held in January 1934 decided that in so far as Kumpta cotton was concerned, the number and description of the standards should be "Good," "Fully Good," and "Fine"

At the meeting of the Standards Sub-Committee held on the 10th September 1935, Rao Bahadur B. L. Patil, representative of the cotton growers of the Kumpta tract, suggested that the standards for Kumptas should start, as in the case of other cottons, from "Fully Good" instead of from "Good" This suggestion together with a note on the subject from Rao Bahadur B L Patil was considered by the Sub-Committee but as the proposal was thought to be unworkable it was not accepted

6. The Sub-Committee considered a letter from Mr. G C R Coleridge regarding the unfair treatment of Indian cotton of 15/16″ staple as a result of its exclusion from the new Liverpool Hedge Contract for Outside Growths and decided that before any action was taken on the letter the opinion of Sir Richard Jackson should be obtained The reply received from Sir Richard Jackson was considered by the Sub-C[illegible] ent meeting and it was decided that further [illegible] be postponed till the reply of the President, [illegible] received to the communication addressed to [illegible]

7. Other subjects which engaged the attention of the Sub-Committee were :—

(a) Bill to amend the Cotton Ginning and Pressing Factories Act, 1935, in its application to the Presidency of Bombay.

(b) Central Provinces Cotton Ginning and Pressing Factories (Amendment) Bill

(c) Mixing of mill fly in Khandesh cotton.

These subjects are dealt with separately on the agenda of the [illegible]

APPENDIX V.

Section 14.—Technological Research—Summary of the progress Report of the Director, Technological Laboratory.

PROGRESS REPORT No. [illegible] OF THE DIRECTOR, TECHNOLOGICAL LABORATORY.

The present report gives an account of the work done at the Technological Laboratory from the 1st June 1935 to the 31st October 1935. The work done during this period will be described under the following five heads:—

I. Spinning Laboratory.
II. Research Laboratory.
III. Moisture Testing Section.
IV. Publications.
V. General.

I. Spinning Laboratory.

The following classified table gives the number of samples received for tests during the period under review together with the figures for the corresponding period of last year for purpose of comparison:—

TABLE I.

—	1st June 1935 to 31st October 1935.	1st June 1934 to 31st October 1934.
Agricultural Departments	78	89
Standard Cottons	..	1
Trade Samples	18	25
Fibre Test Samples ..	41	77
Yarn Test Samples	7	3
Special Test Samples	28	19
Total ..	[illegible]	[illegible]

It will be seen that the number of special test samples which pertain to the technological investigations shows an increase over the corresponding period of last year, but the number of other samples shows a decrease, which is most noticeable in the case of those received for fibre tests alone. The number of such samples is necessarily a variable quantity as it depends to a very large extent upon the various experiments for selection work which are under progress in the farms of Cotton Breeders.

The number and distribution of samples, lots and counts spun during the period under review are given in the following table together with the figures for the corresponding period of last year :—

TABLE II.

—	Samples		Lots.		Counts.	
	1st June 1935 to 31st October 1935	1st June 1934 to 31st October 1934	1st June 1935 to 31st October 1935.	1st June 1934 to 31st October 1934.	1st June 1935 to 31st October 1935.	1st June 1934 to 31st October 1934.
Bombay	42	31	42	31	126	95
Punjab	35	34	35	34	111	103
United Provinces	.			.	.	..
Madras	31	58	31	58	93	174
Central Provinces.	5		5	.	15	.
Miscellaneous	5	49	5	49	15	147
Total	118	172	118	172	360	519
Standard	7	1	14	2	82	12
Trade Tests	33	27	33	27	88	79
Technological Tests	31	24	49	46	194	247
Grand Total	189	224	214	247	724	857

The number of [illegible] test [illegible] yea[illegible] nat[illegible] offi[illegible] anc[illegible] during the co[illegible] period under review [illegible], lots on these sa[illegible] reports. Th[illegible] distribution of the reports issued during the period under review together with the corresponding figures of last year :—

TABLE III.

—	1st June 1935 to 31st October 1935.	1st June 1934 to 31st October 1934.
Spinning Test Reports	57	57
Fibre Test Reports	6	9
Yarn Test Reports	4	4
Total	67	70

It will be seen that the number of spinning test and yarn test reports was the same as issued in last year but the number of fibre test reports is slightly less. As a result the total number of reports issued during the period under review is 3 less than that for the corresponding period of last year. These reports dealt mostly with the routine tests on agricultural and trade samples. Among these the following may be mentioned as being of special interest :—

A. *Agricultural Samples.*

1. *The effect of differential irrigation on the fibre properties and spinning quality of cotton.*—At the last meeting of the Technological Research Sub-Committee held on the 3rd February 1935 the results of tests carried out with a view to ascertaining the influence of differential irrigation on the fibre properties and spinning quality were considered. It was decided that as this investigation had yielded interesting and useful results it should be continued and that the results so far available should be published. Accordingly, more samples of cotton grown with different amounts of irrigation were received from Sakrand, Ganganagar, Padegaon, Coimbatore and Lyallpur. Tests on samples received from the former three stations have already been completed, while tests on samples received from the latter two stations are in progress. As regards the publication of the results of the tests already completed, it was felt that the value of these bulletins would be greatly enhanced if they contained an account not only of the technological work done on these samples but also of the field behaviour and the history of the cottons. Accordingly, the agricultural officers who supplied these samples were requested to collaborate with the writer by sending a detailed account of the field behaviour of their samples. The bulletins on these investigations will be issued under joint authorship after the contributions of the cotton breeders have been received.

2. *Tests on Boss III and Sea Island cottons grown at Sakrand, Sind.*—During the last six seasons tests have been carried out at the Technological Laboratory on samples of long staple Egyptian and American cottons grown at Sakrand. Among these the two cottons which consistently gave the best results are Boss III and Sea Island. In view of the fact that Sind is especially suited for the cultivation of long staple cottons and also in view of the growing demand for such cottons by Indian mills, it was thought that if tests on a larger scale were made on these two cottons and their performance under similar conditions were compared with an Egyptian cotton, the results would be useful in showing the potentialities of these cottons. Accordingly, samples of Boss III and Sea Island cottons were obtained from the Chief Agricultural Officer in Sind and a sample of an Egyptian cotton, Giza-7, was obtained from the local market. Carded and combed yarns ranging from 60's to 80's were spun from these three cottons and tested for strength, evenness, neppiness, etc. The results of the tests are given in the Spinning Test Report No. 632, which is attached as appendix, for consideration if any further action should be taken in this matter.

3. *The effect of method of picking on the quality of Cambodia cotton.*—Two samples of Cambodia cotton grown in Salem were tested at the Laboratory during the period under review. One of these samples was picked according to the method ordinarily employed by the cultivators, while the other sample was picked according to an improved method recommended by the Department of Agriculture, Madras. The results of these tests showed that the sample picked according to the improved method gave uniformly better results in all respects. It contained a smaller percentage of immature hairs, yielded less total waste, registered fewer breakages in the ring frame and the yarns spun from it were definitely stronger, more even, and less neppy than those obtained from the other sample. In view of the complaints frequently heard regarding the amount of trash in some of the Indian cottons due to defective picking a technological leaflet describing the above results has been written and is being sent to the press.

B. *Standard Cottons.*

As in the past exhaustive tests were made on standard Indian cottons and the results obtained were compiled in a Technological Bulletin, which has been sent to the press. It may be mentioned that, following the recommendation of the Chief Agricultural Officer in Sind, two cottons from Sind were included for the first time in the list of standard cottons. One of these cottons has been named "Sind N.R." and represents the improved Sind-Bengals variety, W.N. 27, (*G. neglectum var Rosea*). The other has been called "Sind Sudhar" and represents the improved Sind-American variety, 289-F-1 (*G. hirsutum, Linn*). The area

under their cultivation is increasing rapidly. Both have been tested at the Laboratory during the past 5/6 seasons and their performance in the Laboratory and their behaviour in the field have been found to be very satisfactory. Furthermore, two further selections of C.P. Verum 262, named "V-434" and "Late Verum" have been included in the list of standard cottons as desired by the Director of Agriculture, Central Provinces. V-434 has been found to be specially suited for areas which possess highly variable climate, while Late Verum is found to be specially suited for areas in which the monsoon is likely to last till late in the season. The performance of these cottons as shown by the results of Laboratory tests, is in no way inferior to that of V-262, while their yield and field behaviour, especially under the conditions mentioned above, make them superior to, and more profitable for cultivation, than V-262. It is anticipated that the area under their cultivation will grow rapidly. As many of the standard cottons are now grown on a commercial scale, the results for those which were received fairly early in the season were published in the form of technological circulars. During the period under review such circulars were issued on P.A. 4 F, 1027 A.L.F., Jayawant and Cambodia Co. 2

C. *Trade Samples.*

These samples are tested at the Laboratory in accordance with an arrangement entered into between the Indian Central Cotton Committee on the one hand and the East India Cotton Association, Bombay, and the Bombay and Ahmedabad Millowners' Associations on the other. The results of the tests on these samples have so far been published in the form of technological circulars. However, it was felt that if the results of these tests were compiled in the form of a bulletin, it will constitute a handy reference book, containing detailed information regarding the waste losses, spinning performance, etc., of types which form the bulk of the Indian cotton crop. Before acting on this proposal various organisations like the East India Cotton Association, Bombay, the Millowners' Associations, Bombay and Ahmedabad, the Chambers of Commerce, and the leading mills were circularised to elicit their opinion on this proposal. They all welcomed the proposal and agreed that such a bulletin would serve a useful purpose. Accordingly, during the period under review, arrangements were made to issue a bulletin entitled "Technological Reports on Trade Varieties of Indian Cottons" describing the results of tests on these samples.

As in the past the Laboratory continued to receive samples from private mills which were tested on payment of fees laid down by the Committee. During the period under review 4 samples were subjected to spinning tests [illegible] and 4 to fibre tests.

D. *Technological Samples.*

In addition to the testing of the agricultural and trade samples [illegible] above, the Laboratory has continued its work on [illegible]. [illegible] progress made under this head during the period under review [illegible] described:—

1. *Storage of cotton in the open and in shed at [illegible].*—[illegible] that the results obtained for this investigation were [illegible] of the Technological Research Sub-Committee. It was [illegible] embodying these results should be [illegible] them to [illegible] was done and the reply [illegible] separate [illegible] the [illegible] Technological Research Sub-Committee [illegible]

2. *The effect of [illegible]* [illegible] meeting of the Technological Research Sub-Committee [illegible] the Amraoti cotton were [illegible] on the other [illegible] the results of this [illegible] series of tests on a further set of [illegible] another set of samples was drawn from [illegible] and the tests on these samples are in progress.

3. *The effect of different degrees of compression [illegible]* [illegible] The results obtained with Superfine Comm[illegible] [illegible] Research Sub-Committee at its meeting [illegible] that, if the spinning quality of a cotton [illegible] compression in a bale, the effect is [illegible] a short staple cotton. It was decided that [illegible] of long staple Indian cottons. [illegible]

Jayawant, Cambodia and Punjab-American 289-F have been purchased. These were pressed to the same size, but weighed respectively 400, 300 and 200 lbs. Samples drawn from these bales are under test and a report containing the results will be submitted in due course.

4. *Limit spinning tests.*—The choice of suitable twists for various Indian cottons and the effect of twist on the production, strength and evenness of yarns are matters of great practical importance to the mills. Some time ago the Technological Laboratory undertook an investigation on the effect of twist on two cottons, namely, Cambodia and Mollisoni. This work has now been extended to two Indian cottons, Superfine Oomra and Punjab-American 4-F which have been spun into various counts with different twist multipliers ranging from 3¾ to 5½. The spinning tests and yarn tests on these samples have now been completed and a bulletin describing the results obtained is being written up.

5. *Spinning tests on mixings of Indian cottons.*—This investigation forms a part of the programme of work approved recently by the Indian Central Cotton Committee. The object of this investigation is to find out the particular fibre properties which are responsible for the mixing quality of various Indian cottons. For this purpose, samples of Surat 1027 A.L.F., Khamgaon, Superfine Oomra and Punjab-American 4-F have so far been obtained and the mixtures made from them in various proportions have been spun into suitable counts. Simultaneously with this, an exhaustive examination of the fibre properties of these cottons is being carried out as will be described under the head "Research Laboratory." More samples of Indian cottons will be obtained and treated in the like manner. This investigation is in progress.

6. *Effect of storage of seed-cotton prior to ginning.*—The results obtained for Punjab-American 289-F, Punjab-American 4-F and Mollisoni were considered at the meeting of the Technological Research Sub-Committee held on 17th August 1935. It was decided that these experiments should be repeated on the Punjab cottons and extended to some other Indian cottons with the period of storage increased from 1 month to 3/4 months. Accordingly, arrangements have been made to obtain samples of Wagad 8 and the Punjab cottons with a period of 3/4 months intervening between the dates of picking and ginning. These samples will be tested when the samples of the new crop are received at the Laboratory.

II. Research Laboratory.

Fibre Testing Section.—This section has been fully occupied with the testing of samples for fibre-properties which were sent to the Laboratory both for spinning tests and fibre tests. During the period under review the total number of samples on which fibre tests of all kinds were completed in this section amounted to 146.

Mr. Hari Rao, in addition to supervising the work of this section, concluded his investigation on the effect of twist on the strength and extension of single cotton fibres. He has made these tests on 5 cottons, namely, Cambodia Co. 1, Mollisoni, Verum 262, Banilla and Aligarh 19, and during the remaining part of the period under review has been engaged in analysing the results and writing up an account of this investigation which will be published in the form of a technological bulletin.

Physics Section.—Mr. R. S. Koshal continued with the analysis on the effect of distribution of rainfall and temperature on the fibre-properties and the spinning value of a cotton. In my last progress report I gave a short account of the scope of this investigation and the main results hitherto obtained by Mr. Koshal. These results have proved so interesting and in many respects are likely to be so useful to the cotton breeders that that attempts have been made to apply this analysis to all cottons for which the necessary data are available. This investigation has taken rather longer time than was originally anticipated, but it must be remembered that it covers numerous tests on standard Indian cottons and agricultural samples which have been made at the Laboratory in the last 11 seasons and that without such an analysis the full utility of these tests would not be realised. It is expected that this analysis will be completed in another two months' time, when an account of it will be written up for publication as a technological bulletin.

Mr. C. Nanjundayya continued his investigation on the properties of cotton fibre at the point of rupture of yarn. This investigation forms a part of the programme of work recently approved by the Indian Central Cotton Committee. For this purpose an apparatus had been devised for automatically recording stress and strain in a yarn from the time at which tension is applied to it to the time when rupture takes place. A microscope has also been adapted to enable the

worker to observe the variation in twist at different points of the yarn before it is broken. The properties examined which will be correlated when sufficient data are available are fibre-maturity, fibre-length, fibre-weight per inch, distribution of twist, breaking load and extension This work is in progress

[illegible]

being examined in great detail by Dr. Sen. It is proposed to extend this investigation to a number of other cottons so that it may be possible to draw conclusions of fairly wide applications, but as the results of spinning tests on mixtures may be useful to the trade it is proposed to publish these, in the form of technological circulars or leaflets, without waiting for the final analysis and correlation of all the results

[illegible] tial absorption of [illegible] when he left or [illegible] Owing to the pressure of work on the testing staff of the Laboratory it has not been possible to continue this work after Mr. Sen's *departure*, but as soon as the pressure on the testing staff is relieved, it is hoped to continue this investigation with the help of one of the Junior Testers.

Dr. Thoria, who was appointed to a temporary post of [illegible] the possibility of using short staple Indian cottons for the manufacture [illegible] silk continued his investigation on the determination [illegible] elasticity of films prepared from different short staple Indian cottons [illegible] rags, linters, etc. For the purpose of comparison [illegible] films prepared from wood pulp such as is used for the manufacture [illegible] report on Dr. Thoria's work forms a [illegible] Technological Research Sub-Committee.

Microscopy Section.—During the period under review [illegible] observation on the progressive [illegible] infection and a paper [illegible] has now undertaken an investigation on the [illegible] distribution of rainfall [illegible] another item of research approved by the Indian Central Cotton Committee [illegible] this purpose suitable cottons [illegible] have been selected and [illegible] be mentioned here that [illegible] at the Laboratory [illegible] time. A short note giving a [illegible] workers has been sent for publication. [illegible] for micro-organical damage in [illegible] to fibres drawn from bales [illegible]

In view of the increasing demand for [illegible] it has now been decided to transfer the [illegible] Section. For this purpose Mr. [illegible] has [illegible] attached to this section and the [illegible]

III. [illegible] Testing [illegible]

During the period under review the total number of [illegible] was 13, out of which 3 were tested for the trade, 4 for the Appeal Committee of the East India Cotton Association and the remaining [illegible] of the investigations in progress [illegible] compared [illegible]

[illegible] approved by the

IV. Publications.

It will be recalled that at the last meeting of the Technological Research Sub-Committee the writer presented as desired by the Committee a brochure on the work of the Laboratory between 1923 and 1935. This brochure met with the general approval of the Committee and it was decided to publish it after making a few additions which would enhance its usefulness. During the period under review these additions were made in this brochure and it has now been sent to the press for publication. The following technological bulletins and circulars were issued during the period under review :—

Bulletins.

(1) Technological Bulletin, Series A, No. 28, entitled "Technological Reports on Standard Indian Cottons, 1935."

(2) Technological Bulletin, Series A, No. 29, entitled "Technological Reports on Trade Varieties of Indian Cottons, 1935."

Circulars.

(1) Technological Circulars Nos. 171 to 207 inclusive, detailed as under :—

T. C. No.	Description.	Date.
171	Spinning Test Report No. 591 on samples of Broach cotton, 1934-35	June 1935.
172	Spinning Test Report No. 592 on samples of Jagadia cotton, 1934-35	June 1935.
173	Spinning Test Report No. 593 on samples of Punjab-American cotton, 1934-35	June 1935.
174	Spinning Test Report No. 595 on samples of Bailhongal cotton, 1934-35	June 1935.
175	Spinning Test Report No. 596 on samples of Broach cotton, 1934-35	June 1935.
176	Spinning Test Report No. 597 on samples of Karunganni cotton, 1934-35	June 1935.
177	Spinning Test Report No. 598 on samples of Tiruppur Cambodia cotton, 1934-35	June 1935.
178	Spinning Test Report No. 599 on samples of Northern Cambodia cotton, 1934-35	June 1935.
179	Spinning Test Report No. 600 on samples of Farm Westerns cotton, 1934-35	June 1935.
180	Spinning Test Report No. 601 on samples of Westerns cotton, 1934-35	June 1935.
181	Spinning Test Report No. 602 on samples of Miraj cotton, 1934-35	June 1935.
182	Spinning Test Report No. 603 on samples of Nandyal cotton, 1934-35	June 1935.
183	Spinning Test Report No. 604 on samples of Surat cotton, 1934-35	July 1935.
184	Spinning Test Report No. 606 on samples of Tiruppur Cambodia cotton, 1934-35	July 1935.
185	Spinning Test Report No. 607 on samples of African Busoga cotton, 1934-35	July 1935.
186	Spinning Test Report No. 608 on samples of Kampala cotton, 1934-35	July 1935.
187	Spinning Test Report No. 609 on samples of Hubli Upland cotton, 1934-35	July 1935.
188	Technological Report on Punjab-American 4-F, 1934-35	July 1935.
189	Technological Report on Surat 1027 A.L.F., 1934-35	July 1935.
190	Spinning Test Report No. 612 on samples of Kalagin cotton, 1934-35	July 1935.
191	Spinning Test Report No. 613 on samples of Farm Westerns cotton, 1934-35..	July 1935.

T. C No.	Description	Date
192	Technological Report on Jayawant (Kumpta), 1934-35	August 1935
193	Technological Report on Cambodia Co 2 (Cambodia 440), 1934-35 ..	August 1935.
194	Spinning Test Report No. 620 on samples of Navsari cotton, 1934-35	August 1935
195	Spinning Test Report No 621 on samples of Upland cotton, 1934-35 .	August 1935.
196	Spinning Test Report No 624 on samples of Dholleras cotton, 1934-35	September 1935.
197	Spinning Test Report No 626 on samples of Westerns cotton, 1934-35	September 1935.
198	Spinning Test Report No 627 on samples of Surat cottons, 1934-35	September 1935.
199	Spinning Test Report No 628 on samples of Tinnevelley cotton, 1934-35	September 1935.
200	Spinning Test Report No 630 on samples of Cambodia cotton, 1934-35 . .	September 1935.
201	Spinning Test Report No 631 on samples of Karunganni cotton, 1934-35	September 1935.
202	Spinning Test Report No 633 on samples of Bijapur cottons, 1934-35 .	September 1935.
203	Spinning Test Report No 634 on samples of Bagalkote cottons, 1934-35	September 1935.
204	Spinning Test Report No 635 on samples of A R Jinja cotton, 1934-35 .	September 1935.
205	Spinning Test Report No. 637 on samples of A R Busoga cotton, 1934-35	September 1935
206	Spinning Test Report No. 638 on samples of A R Kampala cotton, 1934-35	September 1935.
207	Spinning Test Report No 640 on samples of Kumpta cotton, 1934-35 .	September 1935.

V. General

Equipment—The following machines and apparatus were added to the Laboratory during the period under review :—

(1) Leitz Polarising Attachment for use with Ultropak Microscope
(2) Bosch and Lomb's Euscope with viewing camera attachment with adjustable microscope lamp
(3) Suter Thread Carrier
(4) Louis Schopper's Strength Tester with graphic recorder for work on the manufacture of artificial silk from short staple Indian cottons.
(5) One Electric oven and an Evaporating Bath for the above work.
(6) Leeds and Northurp Galvanometer.

Staff—Mr D. L Sen, a Senior Research Assistant (Chemist), who was granted one year's study leave left on the 20th September 1935 to join the College of Technology, Manchester

Mr A. B Khan, Junior Tester, resigned his post on 3rd September 1935 to prosecute with further studies.

Mr. S Rajaraman, Technological Assistant, Lyallpur, completed his training at the Laboratory on the 11th September 1935 and proceeded to Lyallpur to relieve Mr. K G. Deo who reverted to his substantive post of Junior Tester at the Laboratory

Acknowledgments.

I have pleasure in acknowledging the loyal co-operation of the staff throughout the period under review which made the work described in this report possible.

(Sd) N. Ahmad,
Director,
Technological Laboratory.

Dated the 23rd December 1935.

APPENDIX VI.

SUBJECT 15.—*Technological Research—Report of the Technological Research Sub-Committee.*

Secretary's Note.

The Technological Research Sub-Committee met at 10-30 a.m. on Saturday, the 11th January 1936.

The Progress Report of the Director for the five months, June to October 1935, was considered. The total number of samples received for tests during the period was only 165 as compared with 219 during the corresponding period of the previous year. 189 samples divided into 214 lots were spun into 724 counts during this period as against 224 samples divided into 247 lots spun into 857 counts during the corresponding period of the previous year. 57 spinning test reports, 6 fibre-test reports and 4 yarn test reports were issued during the period under report, the comparable figures for the previous year being 57, 9 and 4 respectively.

In accordance with a previous recommendation of the Sub-Committee, tests have been carried out on Sakrand, Ganganagar and Padegaon samples and tests are in progress on Coimbatore and Lyallpur samples of cotton with a view to ascertaining the influence of differential irrigation on the fibre-properties and spinning quality of cotton. When the tests are completed the results will be published.

As regards the tests carried out on Boss III, Sea Island and Giza-7 cottons, the Sub-Committee recommends that these tests should be repeated on samples drawn from ordinary commercial crops, and that the results obtained from these tests should not be published till the results of the mill tests on the same samples are available.

The Chief Agricultural Officer in Sind should be informed of the desirability of devoting greater attention to picking and ginning of the long staple cottons grown in Sind.

The Director's proposal to transfer the routine maturity work from the Microscopy Section to the Fibre-testing Section may be approved.

The Sub-Committee understands from the Director that moisture tests on cotton, as requested by the East India Cotton Association, will be taken up immediately.

The Sub-Committee approved the Revised Budget Estimates for 1935-36, and provisionally sanctioned the budget proposals for 1936-37. The Sub-Committee further recommended that a Special Sub-Committee consisting of Sir Purshotamdas Thakurdas, Messrs. Kasturbhai Lalbhai, S. D. Saklatvala, Sakarlal Balabhai and Dr. W. Burns be appointed to go into the whole question of the expenditure of the Laboratory to make recommendations regarding possible economies in the future. Dr. Nazir Ahmad will act as the Secretary to this Sub-Committee. The report of this Special Sub-Committee should be placed before the next meeting of the Technological Research Sub-Committee.

The Sub-Committee recorded the letter received from the Secretary, Karachi Cotton Association, intimating that a large number of covered sheds had been erected in the Thole Yard and that the major portion of the cotton now coming into Karachi is being stored in covered sheds. In the circumstances the Association thinks that no useful purpose would be served either by publishing the report on the deterioration of cotton stored in open plinths at Karachi or by sending it to the Karachi Port Trust. The Sub-Committee, however, recommends that a non-technical summary of the results of the tests carried out should be published for the benefit of the public.

The Sub-Committee considered (1) a note furnished by Mr. R. S. Finlow on the possibility of the manufacture of artificial silk in India, (2) a letter from the Vice-Chancellor, Bombay University, enquiring if the Committee would like Dr. Venkatraman to utilize a part of his European tour to study the production of staple fibre and (3) the report submitted by the Director, Technological Laboratory, on the work done in the Technological Laboratory and the Laboratory of the Research Department of the Bleachers' Association, Manchester. The Sub-Committee recommends that the term of appointment of Dr. Thoria be extended for a period of six months at Rs. 375 per month, and that the cellulose content of mean short staple cottons and high-yielding strains including those that might [illegible] akness of fibre, etc., should

be found out. The Chemist should also try all the three methods on a selected number of cottons The publication of the results so far obtained should be withheld till the investigation is completed The proposed small spinning plant is unnecessary.

As regards the proposal of the Vice-Chancellor, Bombay University, the Sub-Committee recommends that the offer be accepted with thanks Should it be found necessary that any monetary help is required by the University in this matter, it should be referred to the Standing Finance Sub-Committee for decision The Secretary should consult Mr. Fred Stones regarding the facilities for

In the meanwhile, Mr Brodie has promised to furnish information regarding the relative costs and the suitability of the various processes of manufacturing artificial silk and staple fibre This might be awaited

In accordance with the recommendation of the Sub-Committee at its February 1935 meeting, the Director held in December 1935 a Conference between the Technological Assistants and the senior research staff of the Technological Laboratory The report submitted by the Director on the work done at the Conference was recorded It was decided that any proposals regarding the purchase of new apparatus by the Technological Assistants should first be approved by the Director, Technological Laboratory

The Sub-Committee considered the applications of two Junior Testers for higher pay. The Sub-Committee recommends that these applications be referred to the Special Sub-Committee for consideration

P. H. Rama Reddi.

APPENDIX VII

Subject 17 —*Report of the Special Sub-Committee to consider the question of a wider market for Indian cotton.*

Secretary's Note.

The Special Sub-Committee appointed to consider the question of a wider market for Indian cotton met at 3 p m on Saturday, the 11th January 1936

The Sub-Committee understands that though, in pursuance of a previous decision of the Committee, articles had been sent to the *Times* and the *Manchester Guardian Commercial* for publication, the former definitely refused to publish such articles The latter may publish some articles, provided they are well-written and officially sent to the Editor by the Secretary. The Chief Agricultural Officer in Sind, and others wishing to contribute articles may therefore send them to the Secretary to be transmitted to the Editor of the *Manchester Guardian Commercial* The Director, Technological Laboratory, will continue to send, as before, articles for publication in the Textile Weeklies, and other Magazines which show an interest in these articles.

ts wish, the Lancashire- of the Shirley Institute rrange for definite trials with Indian short staple cottons in the woollen industry at Torridon As regards the small samples of Indian short staple cottons to be supplied to *bona fide* consumers in Europe, who ask for them, the Sub-Committee recommends that the Director should omit U.P. and Mathia from his list, and supply only Comillas, Sind-*deshi*, Rajputana-*deshi*, and Burmas.

At its last meet

publication The Sub-Committee examined the said material, and ... that a Sub-Committee consisting of the Vice-President (Chairman), Messrs J. H. Ritchie, R G. Saraiya, S. D. Saklatvala, D McCallum and Dr Ahmad be appointed to meet the representatives of the East India ... ciation and prepare the proposed publication.

In the meanwhile the Secretary might circulate the said material to Directors of Agriculture and the Ahmedabad and Bombay Millowners' Associations and the Upper India Chamber of Commerce for criticism.

The Sub-Committee recorded a note put in by Mr. H. C. Short on the Shirley Institute Exhibition held in September 1935. The Sub-Committee noted with satisfaction the excellent work done by the Lancashire-Indian Cotton Committee to popularise Indian cottons in the United Kingdom and passed the following resolution :—

"This Committee desires to record its appreciation of the excellent work of the Lancashire-Indian Cotton Committee. The large increase in the takings of Indian cotton in the last three years is a striking testimony to the efficiency of their organisation and propaganda."

The Sub-Committee also considered a suggestion from Mr. R. G. Saraiya that periodical reviews of the state of foreign trade in Indian cotton might be prepared by the Secretary and submitted to the Sub-Committee for consideration at its half-yearly meetings. The Sub-Committee, however, thinks that this is only duplication of work, as the same work is undertaken by the Commercial Intelligence Department of the Government of India. So far as the loss of trade with Germany is concerned, the Secretary might write to Sir Bryce Burt to bring the matter to the notice of Government.

Fall in the exports of Indian cotton to China (*Subject* 43).—The Sub-Committee recommends that the letter from the East India Cotton Association be forwarded to the Government of India in the Commerce Department for information and such action as is deemed necessary.

P. H. RAMA REDDI.

APPENDIX VIII.

SUBJECT 19.—*Report of the Agricultural Research Sub-Committee.*

The Agricultural Research Sub-Committee met at 11 a.m. on the 9th January 1936 and divided itself into three Sectional Sub-Committees as shown below for detailed examination and report on the subjects noted against each.

SECTIONAL SUB-COMMITTEE I.

Personnel :—

The President (Sir Bryce Burt),
Dr. F. J. F. Shaw,
Mr. W. J. Jenkins,
Prof. R. H. Dastur,
Mr. H. R. Stewart,
Mr. J. B. Hutchinson,
Dr. V. K. Badami, and
Rao Bahadur G. R. Kothare.

Subjects :—

Madras Fodder Cholam Scheme—Proposed further extension of.
Proposed publication of paper entitled "A note on the hairiness of cotton."
Punjab Cotton Failure Research Scheme—Revised proposals for—
(*a*) Collection of Herbaceum cottons in Iran.
(*b*) Survey of Kathiawar cottons.
(*c*) Arrangements to be made for growing the material obtained from the above surveys.
Sir Albert Howard's criticism of the Committee's work and policy.

SECTIONAL SUB-COMMITTEE II.

Personnel :—

Mr. R. G. Allan (in the Chair),
Mr. J. H. Ritchie,
Mr. Mohammad Afzal,
Mr. J. C. McDougall,
Mr. Nizam-ud Din Hyder, and
Rao Bahadur M. G. Deshpande.

Subjects :—

Bikaner Gang Canal Scheme—Extension of.

SECTIONAL SUB-COMMITTEE III

Personnel —

Dr W Burns (in the Chair),
Rao Bahadur D Ananda Rao,
Mr P. B Richards,
Rai Saheb Kalidas Sawhney, and
Mr H H Pandya

Subjects

Punjab Cotton White Fly Research Scheme—Proposed extension of.

Punjab Pink and Spotted Boll-worm Scheme—Reply of the Director of Agriculture, Punjab, on the observations made by the Committee at its last meeting

Proposed publication of paper entitled " The Seasonal activities of B gossypiperda, the White Fly of cotton in the Punjab "

Madras Pempheres and Physiological Scheme—Proposed all-India tour of Parasitologist

The main Sub-Committee again met at 11 a m on the 10th January 1936 and considered the subjects on the agenda in the light of the reports which the Sectional Sub-Committees made.

A. REPORT OF THE AGRICULTURAL RESEARCH SUB-COMMITTEE ON NEW AGRICULTURAL RESEARCH SCHEMES

At its last meeting the Committee noted in connection with the examination

should be asked to put up proposals for making a comparative study of Indian and Iranian herbaceum cottons In pursuance of this decision Mr Hutchinson has now submitted the following proposals —

(1) *Collection of Herbaceum cottons in Iran* —It is proposed to send a member of the staff of the Indore Institute to Iran to collect samples of *kapas* from Iran.

travelling expenses and contingencies only as the Indore Institute of Plant Industry will meet the salary of the Assistant who tours

(2) *Survey of Kathiawar Cottons* —A survey of Kathiawar cottons has been undertaken by the Institute It is believed that both in the case of Mathio and Wagad cottons crossing with Iranian cottons offered an avenue of improvement

(3) *Arrangements to be made for growing the material obtained from the above surveys* —The Sub-Committee considers that the breeding work on the Kathiawar cottons must be carried out in Kathiawar and that possibly the Bombay and Baroda Departments of Agriculture could arrange facilities at Viramgam and Amreli. Mr Hutchinson might ascertain whether one or both these stations are required for the projected work.

B. REPORT OF THE AGRICULTURAL RESEARCH SUB-COMMITTEE ON EXTENSIONS OF OLD SCHEMES

(1) *Bikaner Gang Canal Scheme* (*No.* 21).—At its last meeting the Sub Committee considered the proposals submitted by Mr. Hutchinson for the extension of this scheme for a period of five years at a total estimated cost of Rs 27,120, and it was agreed that if Mr. Hutchinson wanted a sub-station in th

his work in genetics he *might* be provided with one either at *Raya Farm* or Delhi or Ganganagar whichever was the least expensive. In view, however, of the later memorandum submitted by Mr. Hutchinson the Sub-Committee is of the opinion that :—

(*a*) definite steps to improve the quality of Bengals were necessary,
(*b*) Bengals could be effectively grown at Ganganagar,
(*c*) the objects intended could be *achieved effectively* at much lower cost at this centre *than if a fresh station* was opened in another *tract*, as apart from the new costs involved the buildings and capital sunk by the Indian Central Cotton Committee would, if this station was given up, revert to the State and the general assistance at present freely rendered by Bikaner would be withdrawn, and
(*d*) the estimates were definitely moderate.

For the above reasons the Sub-Committee *recommends that the* scheme be accepted.

It is also suggested that samples of all *materials* of *any* value *resulting* from the present survey in Rohilkhand and Bundelkhand should be supplied to this centre, and Mr. Hutchinson should be *invited to propose* a new name for the scheme.

(2) *Punjab Cotton Failure Scheme* (*No.* 22).—*Prof.* Dastur in the course of his work in this scheme has discovered serious defects in the metabolism of *Desi* and American cotton plants in which the *characteristic* " crop failure " conditions are seen. The further presence of a micro-organism in the seed, and in the roots of such plants has led him to believe that the *defective metabolism is probably* caused by the infection of this organism. The Sub-Committee is of the opinion that before a research on the scale suggested in the proposals is taken up, another year's work should be undertaken to establish that the causal *organism* is the bacteria observed in the diseased plants. This work should be on the lines recommended in Dr. Shaw's note. The Sub-Committee also *recommends* :—

(*a*) that Dr. Verma be kept on for the full term of the scheme as he has been trained specially at the expense of the Committee for this type of work,
(*b*) that his pay should be Rs. 300 per *month* from the date on which he returned to his duties in September 1935 and increments be allowed to him as usual under the rules, and
(*c*) that he should not be subject to the 15 per cent. cut as he was already in his present grade when the cut was instituted.

The Sub-Committee recommends that the Director of Agriculture, Punjab, be asked to depute an experienced clerk in the grade of Rs. 40—2—90 to carry out the clerical work of the scheme. The small increase in cost occasioned by this appointment will depend on the position of the man selected in the scale of pay. The Sub-Committee agrees that one peon on the usual Punjab scale of pay should be sanctioned. Consideration of the proposal for the appointment of additional Assistants in other centres is postponed pending the results of the next year's work but the Indian Central Cotton Committee should invite other cotton botanists to co-operate with Mr. Dastur so far as their resources permit.

It is also recommended that the Assistant in the Punjab Agricultural Department, who, as has been proposed, will be asked to help in the bacteriological work in addition to his own duties, be given a personal allowance of Rs. 50 per mensem. It might be made clear that this allowance is granted only because it is a work, additional to his ordinary duties and involving overtime work. This kind of allowance is not admissible to officers in charge of the Committee's schemes.

Punjab Cotton White Fly Research Scheme (*No.* 23).—This scheme started work in April 1931. Out of the total grant of Rs. 56,087 for two years a saving of Rs. 8,560 is now anticipated.

The Sub-Committee recommends the extension of this scheme as applied for by the Director of Agriculture, Punjab. The latter stated that the final report would be submitted at the end of that period and no further extension would be required.

Madras Fodder Cholam Scheme (*No.* 35).—This scheme has been in operation since 1931. The total cost of the scheme sanctioned by the Committee up to the 14th June 1936 is Rs. 17,700.

The Sub-Committee recommends that the scheme be extended for a year as a year was lost last year owing to the failure of the monsoon. The Sub-Committee recommends a grant of Rs. 4,210 only as the leave and pension contributions have to be waived by the Local Government.

Hyderabad Pink and Spotted Boll-worm Scheme (No. 40)—The sanctioned period of this scheme expires on 31st May 1936. As the proposals for its extension were received too late to be considered at this meeting of the Sub-Committee it recommends that pending the examination of these proposals at the next meeting, an *interim* extension for 4 months may be granted to this scheme at a proportional cost.

Khandesh (Banilla) Seed Distribution Scheme (No 32)—The Sub-Committee after a lengthy discussion decided to recommend that this scheme be continued for one year only so as to enable the Director of Agriculture, Bombay Presidency, to put the position before this Government and to enable him to make effective arrangements to carry on the work of Stages III, IV and V. The Sub-Committee felt that in an extension of this kind the principle laid down earlier, that local Governments should undertake a fair proportion of the cost of the extension, should be adhered to. The Sub-Committee is of the opinion that a contribution covering Stages I and II might be regarded as a fair demand on the Indian Central Cotton Committee, but that this should only be forthcoming if the Local Government concerned would undertake the cost of the remaining stages of expansion

Hyderabad Seed Distribution and Extension Scheme (No 41)—The proposals for the extension of this scheme, which is to terminate on the 29th February 1936 will be considered at the next meeting of the Sub-Committee as they were received too late to be considered at this meeting. The Sub-Committee therefore recommends that this scheme be granted an *interim* extension for six months, at a cost proportional to the current year's estimate

C Report of the Agricultural Research Sub-Committee on Research Students.

The Sub-Committee considered and recorded the progress reports on Messrs. Sant Singh Verma, G B Patel and Nazir Ahmad for the year 1934-35 forwarded by the High Commissioner for India, as well as a report submitted by Mr Patel on the work done by him at the University of California from June 1935 to November 1935

Foreign Scholarship and Training Grant—The Sub Committee recommends the application of Mr. K. [illegible]

[illegible] stated in paragraph 2 of the Director of Agriculture's letter of the 6th December 1935.

Mr. P Abraham's request for training grant also may be granted. The total grant required is only Rs. 120

General.

Punjab Pink and Spotted Boll-worm Scheme—Reply of the Director of Agriculture, Punjab, on the observations made by the Committee at its last meeting (No 20)—The Sub Committee recommends that the explanation of the Director of Agriculture, Punjab, be accepted as regards the reasons for not carrying out on a large scale practical control measures in the current season. Any proposals by him for the future can be dealt with when they are presented

Publication of Papers —

(1) "The Seasonal activities of B. gossypiperda, the White Fly of cotton in the Punjab," by M. Afzal Husainetal.

(2) "A Note on the hairiness of cotton" by Mohammad Afzal.

(3) "A Note on the water conducting capacity of the wood of cotton plant at Lyallpur with special reference to irrigation" by Mohammad Afzal

[illegible] t these papers should first be offered to the [illegible] ence and that this should be the normal [illegible] papers describing "work financed by the [illegible] should be offered to the Indian Journal of Agricultural Science without waiting for a meeting of the Sub-Committee but

should be forwarded to the Imperial Council of Agricultural Research through the Secretary, Indian Central Cotton Committee. A list of such papers should be reported to the Indian Central Cotton Committee at each meeting.

Madras Pempheres and Physiological Scheme—Proposed all-India tour of Parasitologist.—The Sub-Committee understands that likely parasites of Pempheres are not known to exist outside India. The Sub-Committee is therefore of the opinion that after a thorough survey has been made of the distribution of Pempheres in the Madras Presidency with such information as may be gained concerning its parasites and predators it would be desirable for the Parasitologist to examine outside Madras such areas in India or Burma as are likely to be of use.—This tour should be undertaken in 1936-37. The programme prepared by the Director of Agriculture, Madras, in consultation with the Parasitologist should first be circulated to Dr. W. Burns and Messrs. P. B. Richards, J. B. Hutchinson and Mohammad Afzal for approval, as a general tour all round India without reference to the occurrence of Pempheres or its parasites is not desirable. Rs. 1,600 for travelling allowance would remain as part of the budget of this scheme.

The Sub-Committee recommends that the Directors of Agriculture may be authorised to sanction the tours of specialists outside their provinces, provided there is budget provision. The Standing Finance Sub-Committee need be approached only in case a re-appropriation is necessary.

Appointment of a Sub-Committee to work out details for holding a conference of scientific workers on cotton.—A Sub-Committee consisting of the following members was appointed for this purpose:—

The President,
Mr. Mohammad Afzal,
Mr. J. B. Hutchinson,
Dr. W. Burns,
Dr. F. J. F. Shaw,
Mr. P. B. Richards,
Rai Saheb Kalidas Sawhney,
Mr. W. J. Jenkins,
Dr. Nazir Ahmad, and
The Secretary.

Sir Albert Howard's criticism of the Committee's work and policy (No. 42).—The Sub-Committee recommends that the draft of the summary report on the discussion on this subject be approved. After approval it may be sent to Sir Albert Howard and the Press.

Bengal Comilla Cotton Improvement Scheme.—A note on the work of this scheme submitted by Mr. Hutchinson was considered by the Sub-Committee. As it appears that the Bengal Agricultural Department has misunderstood the object of the scheme, the Secretary might write and explain to the Director of Agriculture, Bengal, the Committee's object in financing this scheme. At the same time Mr. Hutchinson also will write to the Director of Agriculture regarding the suitable method to be used for comparative yield tests on steep hills.

P. H. Rama Reddi.

Extension of the Gang Canal (Bikaner) Scheme of cotton investigation.—The original scheme was sanctioned by the Committee in July 1930, when a Capital grant of Rs. 14,500 and a Recurring grant of Rs. 7,640 annually, for five years were made to His Highness's Government. The Capital expenditure has been Rs. 8,585 on buildings (Laboratory, office, etc.), and Rs. 3,735 on a cotton gin, engine, implements and laboratory equipment. Current expenditure has averaged Rs. 4,785 a year. Taking past actuals with the current year's Budget Estimate the total savings will be about Rs. 15,450 at the end of the Scheme.

The scheme actually started on January 1st, 1931, and terminates on December 31st, 1935.

The attached résumé* describes the progress made in its first four crop-years the cotton crop on which the fifth year's work is based is in the ground and should be harvested by the close of the year.

[illegible]

If, however, as seems likely, the steady tendency of trade demand for longer staple cottons is sustained and increased it is the growers of the Bengals class who will suffer first and most from a weak market and the improvement of variety for those growers is a pressing problem which it is now proposed should be attacked under an extension of the Gang Canal Scheme The area of such cottons in Rajputana and the Southern Punjab States is about half-a-million acres and Bengals form about one fifth of India's total production

An improved variety to replace this very large block of Bengals of low spinning quality in N W India obviously cannot be developed by the Institute of Plant Industry at Indore but Ganganagar which already forms part of that block is admirably suited for the purpose in its climate and soil and in the existence of an experimental farm with laboratory and other accommodation built and equipped at the Committee's expense, under the executive control of a State Agricultural Officer who is an old Cotton Committee Scholar and of the excellence of whose work the Committee is already aware The arrangement under the existing scheme whereby the administration is in the hands of the Bikaner Government and the scientific control is entrusted to the Institute of Plant Industry as worked smoothly and efficiently

A programme for the proposed extension of the scheme should include three lines of attack on the Bengals improvement problem for Rajputana and the Southern Punjab States region in particular

(i) Selection in indigenous cottons of the Bengals tracts Recent preliminary work in other parts of Rajputana has clearly shown there is a good deal of scope here though a cotton to spin "at least 25 counts" could perhaps hardly be expected

(ii Amelioration of the plant's environment—the physical condition of the soil, its moisture supply, manuring, rotation, fallows and windbreaks to make a safer Punjab-American crop possible, or at any rate, so to improve the yield and quality of *desi* types (This work should be based—as it has been—upon laboratory, pot-culture and lysimeter work at Indore)

(iii) Exploitation of the quality genes known to exist in G arboreum v. neglecta from Assam and W Burma by crossing with Cwn 520 and Mollisoni. (Afzal at Lyallpur has already shown the value of Chinese cottons as parents)

Items (i) and (ii) are safe and obvious but item (iii) is a task of far greater magnitude and difficulty If the attack is to be sufficiently comprehensive to ensure adequate exploitation of the material now available a large range of crosses will have to be grown This will involve the elaboration of means of testing the *relative potentialities* of these crosses in an early stage before the mass of material becomes unmanageable. Such methods have indeed already been outlined in discussions and correspondence between Mr J B Hutchinson (Geneticist and Botanist at the Institute) and Prof. Fisher, and it is expected that they will make possible such preliminary judgments in the early stages Mr. Hutchinson says: "It is *my opinion* that to make such a test upon a number of crosses with fine quality cotto[illegible]
by carrying [illegible]
would form [illegible]
Bengals cott[illegible]
methods for [illegible]

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* Not printed.

It will probably require at least five years for tangible results to appear from the third line of attack which in some respects is likely to lead to the greatest advance in cotton improvement. Any extension of the present Gang Canal Scheme on the lines proposed should therefore be sanctioned for five years and the estimated yearly costs for that period are as follows :—

Year.	Rs.
1936	5,142
1937	5,233
1938	5,324
1939	5,415
1940	6,006

Copy of letter No. 3397/1/5, dated the 13th August 1935, from the Director, Institute of Plant Industry, Indore, to the Secretary, Indian Central Cotton Committee, Bombay.

SUBJECT :—*Bikaner (Gang Canal) Scheme.*

In continuation of my letter No. 9528/1/5, dated July 28th, 1935, I have the honour to inform you that as the member of your Committee representing the States in Central India and Rajputana, I am now authorized by telegram by the Government of His Highness the Maharaja of Bikaner to say that they are agreeable to provide facilities on the State Farm at Sriganganagar for the extension of the present cotton Investigation Scheme for a further five years after its expiry on December 31st, 1935. To this end I am further authorised to make a request on their behalf to the Indian Central Cotton Committee for a grant totalling Rs. 27,120, spread over the five-year period, 1st January 1936 to 31st December 1940, towards the cost of such extension on the lines laid down in the Memorandum enclosed with my letter under reference, (which has been considered by the Bikaner Government) and under the same conditions as attach to the current scheme.

A copy of the Budget Estimates covering the proposed period of extension is enclosed. These have also been under consideration by the Bikaner Government but their comments, if any, on the details of the Estimates will doubtless be sent by post.

Proposed Budget Estimates for extension of Bikaner (Gang Canal) Scheme for five years, from 1936 to 1940.

	1936		1937		1938		1939		1940		Grand Total
(A) *Establishment*	Rs	Rs.	Rs	Rs	Rs	Rs	Rs	Rs	Rs.	Rs	Rs
1. Pay of Cotton Assistant at Rs 120-5-140	1,440	..	1,500		1,560		1,620		1,680	..	.
2. Pay of Fieldman at Rs. 32 p.m. from 1-1-36 and at Rs 34 p m. from 5-10-36 (Grade Rs. 30 2-50)	390		414		438		462		486		
3. Junior Clerk at Rs. 33 p.m. ..	396		396		396		396		396		
4. Laboratory Assistant at Rs. 25 p.m.	300		300		300		300		300		
5. Provident Fund contribution ..	211	2,737	218	2,828	225	2,919	232	3,010	239		
6. Provision for pay in lieu of leave not taken before December 31st 1940 .. .									500	3,601	15,095
(B) Contingencies											
7. Labour	1,000		1,000		1,000		1,000		1,000		
8. Appliances and materials for cotton selection and plant breeding	430		430		430		430		430		
9. Stationery	50		50		50		50		50		
10. Upkeep of machinery	50		50		50		50		50		
11. Apparatus and Chemicals ..	70		70		70		70		70		
12. Repairs to Laboratory Building	130	1,730	130	1,730	130	1,730	130	1,730	130	1,730	8,650
(C) Travelling expenses ..		250		250		250		250		250	1,250
(D) Audit fees ..		225		225		225		225		225	1,125
(E) Miscellaneous expenses		200		200		200		200		200	1,000
Total Rs		5,142	..	5,233	..	5,324	.	5,415	..	6,006	27,120

MEMORANDUM.

Proposed extension of the Bikaner (Gang Canal) Scheme of Cotton Investigation.

1. I have now read and considered the papers concerning the proposed continuation of the Ganganagar Scheme.

2. The Indian Central Cotton Committee appear to have misunderstood the proposals on several points. In the first place, I am not asking for a sub-station in the Bengals tract. I have one, namely Ganganagar, and I put up to you the suggestion that it might profitably be continued. I am still of that opinion. Whether or not it would be profitable to start an entirely new scheme at another centre is a very different matter. I am quite certain it would be more expensive, so much so that I consider it would be a waste of time to elaborate alternative schemes unless the Committee are prepared to spend double the amount asked for for Ganganagar. As I understand the papers before me that rules out any alternative place.

3. I rather gather that the Committee thinks that I am anxious to expand my work in the Bengals tract. I am not, it is immaterial to me whether my work is concentrated at Indore or to some extent distributed. Presumably the members are aware that before suggesting a renewal you enquired of the Secretary whether or not the Committee would wish it. In the absence of any opinion on the part of the Secretary, one naturally supposed the Committee would not wish their interest in the buildings at Ganganagar to lapse without considering proposals for their utilization.

4. With regard to the suitability of Ganganagar for the purpose, since the most successful variety in the Gang Canal Colony at present was bred at Cawnpore, I fail to see why a cotton should not be bred at Ganganagar suitable to U.P. Bengals tracts. Apart from that, what I have proposed is a research scheme, the products of which should properly become the raw material for local breeding schemes, and would not necessarily be suitable for immediate distribution.

5. Finally, may I draw attention to the urgency of this matter ? If the scheme does not proceed at Ganganagar, it will have to be recast, and there is little or no hope of doing this and arranging for its prosecution elsewhere in time for next season. The material and data already collected will be wasted, as I have no other suitable locality in which to grow them. I returned to India in the expectation of visiting Ganganagar within a month in order to arrange future work. Unless an early decision is made the completion of the current season's work in accordance with the scheme will be impossible.

(Sd.) J. B. HUTCHINSON,
Geneticist and Botanist.

Dated the 10th October 1935.

Revised Proposals for the Punjab Cotton Physiological Research Scheme (Cotton Failure Scheme).

At its meeting in August 1933, the Indian Central Cotton Committee sanctioned a scheme of research, according to proposals submitted to it, in connection with the periodic partial failures which have befallen the Punjab-American cotton crop since 1919. As cotton research was already being conducted from the breeding, entomological and agricultural aspects, the scheme proposed to investigate the failure problem on physiological and biochemical lines. Its cost, as sanctioned by the Committee, amounted to Rs. 1,06,530 spread over a period of five years, whilst in addition the probable necessity of providing a further Rs. 40,000 for a greenhouse, where temperatures, humidities, etc., could be controlled, was recognised but the provision of funds for it was deferred until the Physiologist, to be appointed under the scheme, had examined the question further. In order to obtain a suitable experienced Physiologist it was subsequently found necessary to pay a higher salary than that provided in the scheme, the cost of which was, therefore, increased to Rs. 1,48,833 for the five years. Effect was given to this scheme in March 1935.

The preliminary investigations carried out by the Plant Physiologist on this scheme during the present cotton season (May to December 1935) have led to certain very important, striking and unique results, which indicate the probable

(4) *Microscopical.*—

(a) Microscopic examinations of the commonly grown varieties of American and *Desi* cottons will be made to determine the time when the disease first appears and to see if correlations can be established between the appearance of the disease and the resultant yields

(b) Examinations of different varieties and strains of American and *Desi* cottons grown by the Cotton Research Botanist with a view to discovering disease resistant strains

(c) Examination of plants grown under para 3 above (Agricultural) Sections (b) and (c)

(d) Examination of old roots of cotton plants of the previous season and of the roots of other Rotational crops.

Microscopical examinations will be made every week and is one of the most important items of the programme.

(5) *Further investigation on the internal disease already discovered*—It would

(6) *Microscopical Examination of cotton plants at different centres in India.*—Microscopical examination of different strains of indigenous and exotic cottons grown at Indore, Surat, Dharwar, Coimbatore, Mysore, Nagpur and Sind in order to determine the time of incidence of the "disease" and to discover resistant strains.

Copy of letter No D 6106/35/A, dated the 23rd December 1935, from the Offg. Agricultural Expert, Imperial Council of Agricultural Research, New Delhi, to the Secretary, Indian Central Cotton Committee, Bombay

Mr. Burt and myself had before us recently the report of Mr. Dastur on the

...experiments are in progress to determine if the nutritional disorder is caused by deficiency of minerals These experiments are not yet completed and their results must be awaited

The author has however clearly established that there are abnormalities in the histology of leaf, stem and root in cotton plants

In the case of the leaf

starch in the leaf which

pro

cot

the

of

spo

... of the leaf increases in area and the leaf becomes curled. This is somewhat reminiscent of what happens in a very obscure trouble of tobacco in Bihar of which the cause at present is unknown.

In the roots, the histology is also abnormal. ... describes the first ... Presumably these

which ... medullary rays and the xylem parenchyma ... with this deposit all the conducting channels for the translocation of plastic material become filled

be an advantage if you can have a few copies of this letter cyclostyled and placed before the Agricultural Research Sub-Committee when the subject is being considered

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Punjab Cotton White Fly Research Scheme—Proposed extension of

Secretary's Note.

The attached letter together with proposals for the extension of the Punjab Cotton White Fly Scheme for a period of six months up to the 30th September 1936, received from the Director of Agriculture, Punjab, is for consideration

These proposals, which have been approved by the Punjab Provincial Cotton Committee, do not involve any additional grant as the estimated expenditure of Rs 2,850 during the extension period of the scheme can be met from savings under the scheme

The White Fly Scheme was sanctioned by the Committee in December 1930 for a period of three years at an estimated cost of Rs 34,500 and it started work in April 1931 It was extended in January 1934 for a further period of two years at an additional cost of Rs. 21,587 Out of the total grant of Rs. 56,087, it is anticipated that there will be a saving of about Rs 8,560 and the proposed expenditure of Rs 2,850 can be met out of these savings without utilizing the savings under the Punjab Spraying Trials Scheme, as suggested by the Director of Agriculture, Punjab.

P H RAMA REDDI

Copy of letter No 105/37-236II, dated the 7th December 1935, from the Director of Agriculture, Punjab, Lahore, to the Secretary, Indian Central Cotton Committee, Bombay

SUBJECT —*Punjab Cotton White Fly Research Scheme*

With reference to the correspondence ending with your letter No. 370, dated the 18th September 1935, I have the honour to submit herewith proposals made by the Entomologist to Government, Punjab, Lyallpur, for a brief extension of the Cotton White Fly Research Scheme in the Punjab

The Cotton White Fly Scheme was started originally for a period of three years and came into effect from April 1931. It was subsequently extended for a period [illegible]

[illegible]

Laboratory staff may be retained for a further period of six months to complete the work It is not intended during this period to carry out any new research and the field staff will, therefore, not be required

[illegible]

ca [illegible]

op [illegible]

sc [illegible]

a [illegible]

the staff which it is now proposed to retain for the White Fly Research Scheme will deal also with the spraying operations although certain additional help will have to be given

As stated by the Entomologist to Government, Punjab, the present proposals can be financed from savings in the grants already made by the Committee for these schemes

The proposal has been considered and approved by the Punjab Provincial Cotton Committee and I have the honour to request that it may be considered at the meeting of the Indian Central Cotton Committee to be held next month

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WHITE FLY RESEARCH SCHEME.

I have the honour to submit herewith a very brief scheme for the extension of the period of the White fly Investigation Scheme by six months only from April to September 1936.

In this connection, I may also point out that there are two schemes with regard to the White fly Investigations, namely, (1) the White Fly Research Scheme, (2) the Spraying Trials Scheme, and both of these are supervised by the same staff.

Details about each of these schemes for which extension is requested are submitted below :—

I. *White-Fly Research Scheme.*

1. The investigations and the routine work connected with the programme of work adopted for the year 1935-36 will be continued till about the end of March 1936.

2. The work on one of the most important items on the programme, i.e., the relationships of Nitrogen and Carbohydrates in cotton plants with the white-fly infestation to estimate the nature of damage, is in hand. In all about 600 samples of cotton plants under different white-fly infestation have to be analysed chemically which undoubtedly will be carried over, long after March 1936, for analysis and compilation of the data collected.

3. Observations are being recorded on 160 plants under field cages and 880 plants in experimental plots under various treatments of manures and infestation, etc. Their flowering, shedding and yield records including, of course, ginning, etc., will have to be correlated with the white-fly infestation during the season. The interpretation of these results, however, will only be possible after the data for each set of experiments have been compiled.

4. Observations on the relative infestation of the white-fly during the year on the plants under various treatments and its after effects thereon are supplemented by a lot of planimeter work to estimate the leaf area examined.

Besides, it may be stated that ordinarily the compilation of one year's work for submitting the Annual Progress report only takes about three months after March. It is quite evident, therefore, that some additional time will be required for compiling the accumulated data of the last 5 years.

II. *Spraying Trials Scheme.*

The progress report of these trials for the year 1934-35 was considered by the Indian Central Cotton Committee in their last meeting held in August. According to their instructions conveyed in their letter No. 3312, dated 19th February 1935, and in the interest of the investigations and the public in general, the results of these trials extending over two years 1933-35 are to be compiled in a suitable form for publication. As these experiments were conducted at three different centres in the Province, and various types of machinery and a number of insecticides were tried, the compilation of this work alone will take a considerable time.

Under these conditions, primarily when a definite problem is yet under investigation and good bit of analytical work still remains to be finished, and secondly when the data of 5 years' investigation on the white-fly scheme and 2 years' work on the spraying trials are to be compiled and their results interpreted without which the whole of the work is of no value, it is requested that the Indian Central Cotton Committee may kindly extend this scheme for a further period of six months only up to the 30th of September 1936, with the reduced strength of the staff and other expenses as detailed below :—

Staff.	Rs.	Rs.
1 Asstt. Cotton Entomologist	325	1,950
1 Field Assistant .. .. less 15 per cent. cut	78	402
1 Clerk .. .. less 15 per cent. cut	40	204
1 Fieldman	28	168
Total ..		2,724
Contingencies, postage, etc.		126
Grand Total ..		2,850
Approximate savings from the schemes :—		
1. Spraying Trials Scheme		2,200
2. *White-fly* Scheme		1,680
Total ..		3,880

The Committee shall not have to incur any additional expenditure and even after the expenditure there shall be a balance of approximately Rs. 1,000.

Madras Fodder Cholam Scheme—Proposed further extension of.

Secretary's Note.

The attached letter received from the Madras Government forwarding proposals for the extension of the Madras Fodder Cholam Scheme for a further period of *at least* one year from the 15th June 1936 at an estimated cost of Rs 4,610 is for consideration. It will be seen from the attached proposals that provision has been made for leave and pension contributions on behalf of the Additional Assistant and the Laboratory Attender, amounting to Rs. 400 As the Committee has decided at its 27th meeting held in August 1933 that the recovery of leave and pension contributions on behalf of the officers lent by local Governments for work on the Committee's schemes should be waived by the local Governments concerned, the grant for the extension of this scheme, if sanctioned, will be reduced by Rs 400.

This scheme was originally sanctioned in July 1930 for a period of three years and it commenced work in January 1931. In August 1933, it was extended for two years and five months up to the 14th June 1936. The total cost of the scheme sanctioned by the Committee amounts to Rs. 17,700.

The Agricultural Research Sub-Committee at its Special Meeting held in June 1934 decided that this scheme might be allowed to continue till the end of its sanctioned period only.

P. H. RAMA REDDI.

Copy of letter No 1804 (Ms), dated the 20th December 1935, from the Secretary to the Government of Madras, Development Department, Madras, to the Secretary, Indian Central Cotton Committee, Bombay.

Madras Fodder Cholam Scheme—Further Extension.

I am directed to forward the proposals of the Director of Agriculture, Madras, for a further extension of the Madras Fodder Cholam Scheme for at least a period of one year from the 15th June 1936 and to request you to be good enough to obtain the sanction of the Committee and of the Government of India.

EXTENSION OF THE MADRAS FODDER CHOLAM SCHEME.

This scheme was [illegible] started on 11th January 1931.

2. The investigations, during this period, brought to light a number of [illegible] and very suggestive facts. To mention a few—

(a) The growing of leguminous fodders like sunnhemp [illegible] horse gram (*phaseolus biflorus*), in the place of fodder cholam, [illegible] the yield of cotton by nearly 40 per cent. [illegible] obtained is reduced by at least 25 per cent.

(b) The ill-effects of fodder cholam are more [illegible] to set seed. If, on the other hand, it is harvested at the [illegible] stage, the succeeding cotton yields as much as that following [illegible] but by this change in the time of [illegible] cholam, the yield of [illegible] is diminished by about 40 per cent. and [illegible] freakish rains that are not [illegible] North-east monsoon period.

(c) The low yields [illegible] in the moisture [illegible]

(d) The *juar* roots [illegible] that the normal [illegible] are seriously impaired.

3. At its 27th meeting held in August 1933 the above findings were scrutinised and the continuance of the scheme was found necessary. An extension of two years and five months was granted and the following points of investigation were proposed for study :—

(1) Trials of various combinations of pulse and fodder with a view to determine the most suitable mixture.

(2) Other possible ameliorative measures including pot-culture studies.

(3) A study of typical soil profiles and of the nature and extent of soil colloids in the Tinnevelly soils when cropped with Cholam, Cumbu and Cotton.

4. Work on the above lines was commenced early in 1934 ; but the unexpected rainless summer and the lateness and subsequent failure of the south-west monsoon in 1934 had upset the normal soil conditions with the result that the data of field experiments secured in the first year after the extension had to be declared as not representative and inconclusive. Now if the scheme is to be terminated by the 14th June 1936, according to the decision of the Committee, it will be left with only one year's data to rely upon even presuming that 1935-36 will turn out normal. It is needless to point out that such a state is rather not desirable.

5. Further it has been found that, as a result of cropping the black cotton soils of the Tinnevelly district with cholam, significant changes are induced in the nature and extent of soil colloids. The cationic composition becomes richer in Sodium—a very undesirable constituent for heavy soils. There is also an increase in the clay content. These findings explain to a certain extent the reduced permeability of the cholam soils and their defective texture. It will be necessary to find out how exactly these changes are brought about and in what manner they are connected with the cultivation of fodder cholam, more particularly with the process, in it, of seed-setting, before the ameliorative measures that are being tried are rationalised.

6. It will be obvious from the foregoing account that a further extension is essential for the completion of the programme of 1933. It is, therefore, requested that the scheme be sanctioned for a period of at least one year from 15th June 1936.

7. The probable expenditure needed for this period is furnished in the appended statement.

(Sd.) S. KASINATH,
for Cotton Specialist.

Dated the 26th November 1935.

Khandesh (Banilla) Seed Distribution Scheme—Proposed extension of.

Secretary's Note.

The attached proposals, received from the Director of Agriculture, Bombay Presidency, for the extension of Khandesh (Banilla) Cotton Seed Distribution Scheme are for consideration.

For 5½ years from October 1926, the Committee financed a scheme in Khandesh at a total cost of Rs. 26,573 to enable the Agricultural Department to give a thorough test to some of the Bani-Comilla crosses made by the Department in 1908. As a result of these tests, it was found by the end of the year 1930, that one of these crosses, *Banilla*, which had spread on its own merits over a lakh of acres, was, in spite of its decreasing spinning performance from 20's to 14's and its susceptibility to wilt, more paying to the grower than N.R. or the local mixture. The Committee, therefore, sanctioned a seed distribution scheme in December 1930 for the extension of *Banilla* in the Khandesh tract. The following extract from the Report of the Agricultural Research Sub-Committee will show that the Committee looked upon *Banilla* only as a type just good enough to fill the gap between then and the time when a more suitable and better type for the tract would be available :—

"The Sub-Committee considers that the grower will benefit considerably if this variety is distributed so as to replace the existing ones even though Banilla may be replaced later by a better variety."

In Appendix II* to the proposal is given a statement showing the changes in the original scheme that would be effected under the proposals now put up. A copy of the original proposals is therefore attached† for purposes of comparison.

* Not Printed. † Not Printed.

The following comments may, however, be made on the two schemes :—

Pay of Staff.—The annual pay of staff has increased from Rs. 12,708 to Rs 15,507 as under .—

			Average of 3 years.
Stages I and II —I. Pay of Establishment	.	..	Rs. 4,054
Stages III, IV and V (part) —			
I Pay of Officers	..	..	Rs. 5,980
II Pay of Establishment .. .	..		Rs. 5,473
	Total	.	Rs. 15,507

•The annual increments of the staff and the higher cost of the Cotton Superintendent, Amalner, appear to be the reason for the increase.

Travelling Allowance —This has been raised from Rs. 1,500 to Rs 1,700

Contingencies —Considerable reduction has been effected in this item as a result of the experience of the past five years and the transfer of the seed stocking transactions to the Personal Ledger Account of the Director of Agriculture, so much so the expenditure under this head has now been brought down from Rs 37,860 to Rs 9,900

Roguing Charges —Roguing charges are calculated at the rate of three annas per acre It is not known why these charges should be so high in this scheme while in the Jayawant and Tiruppur schemes they are only at half anna per acre.

Receipts.—Against the estimated receipts of Rs 22,000 per annum on the average, the actuals were only Rs 9,468, according to the figure quoted by the Director of Agriculture

The Committee is not entitled to get receipts in Stages III, IV and V (part) because the seed stocking and selling part in the scheme will be undertaken by the Director of Agriculture from his Personal Ledger account funds

Finance—Share of the Committee —The estimated total cost of the Extension Scheme for three years is Rs 81,921. The Committee will not, however, have to bear the whole of this expenditure, since a sum of Rs 18,000 may be expected by way of receipts from the sale of farm produce The net amount, the Committee is being asked to bear, is therefore only Rs 63,921

The Director of Agriculture suggests that this amount *can easily be met from* the balance available from the original scheme What that balance should be is a moot point As in the scheme now under consideration, the original scheme was also based on the expectation of receipts covering a part of the gross expenditure, as shown in Column 2 below .—

	Original estimate as sanctioned by the Committee in 1930	Revised estimate shown in the Director of Agricul-ture's letter.	Savings (+) Deficit (—)
(1)	(2)	(3)	(4)
	Rs.	Rs	Rs.
A Gross expenditure	2,70,340	1,76,464	+ 93,876
B. Receipts . .	1,10,000	28,561*	— 81,439
C Net cost of the Scheme.	1,60,340	1,47,903	+ 12,437

* Receipts advised up-to-date.

It is for consideration whether, as suggested by the Director of Agriculture, the savings under item A can be carried forward and utilised for the extension of the scheme since the savings under item C are not sufficient [illegible] meet [illegible] corresponding estimated net cost of Rs 63,921 for the extension.

Finance—Share of the Bombay Government.—In February 1935 the Committee laid down the principle that in order to relieve the burden on the Committee, Provincial Governments should accept increasing financial responsibility for such schemes as at the end of their sanctioned periods were found to have produced results of definite value. And in accordance with this principle the Committee decided that in extending the Punjab Botanical Scheme the Committee should offer to pay only half the cost of the scheme, after deleting the cost of all supplies and services. Also at the August 1935 meeting in sanctioning the Jayawant Seed Scheme the Committee stipulated that the Bombay Government should bear 25 per cent. of the cost of the scheme.

In pursuance of the above-mentioned policy of the Committee, it is now necessary to decide what part of the total expenditure on the scheme should be borne by the Bombay Government. The proposals under consideration do not make this point clear, though it is stated that the seed stocking part of the scheme will be undertaken from the Personal Ledger Account funds of the Director of Agriculture.

P. H. RAMA REDDI.

Copy of letter No. S-36-P-V, dated the 19th December 1935, from the Director of Agriculture, Bombay Presidency, Poona, to the Secretary, Indian Central Cotton Committee, Bombay.

SUBJECT :—*Khandesh (Banilla) Cotton Seed Distribution Scheme—Extension of the.*

In inviting reference to your letter No. 2396, dated 10th January 1931, sanctioning the above scheme, I have the honour to state that the sanctioned period of five years of this scheme will expire at the end of April 1936. The Deputy Director of Agriculture, N. C. D., Nasik, has submitted proposals (copy enclosed) for the extension of the period of this scheme for a further period of *three years* at a total cost of Rs. 81,921. The object of this extension is to cover with Banilla cotton a suitable tract in the Tapti valley talukas in a compact block. It is also expected that by the end of this period the new long-stapled Verum cotton selection will be available for spread and the seed multiplication and distribution organisation proposed for this Banilla extension work, will then be available for the new cotton.

2. In this connection, I may state that there will be an unspent balance of about Rs. 93,876 at the end of the current five years' scheme which expires at the end of April 1936. This is as detailed below :—

	Rs.	Rs.
Sanctioned grant of the scheme		2,70,340
Deduct total expenditure up to 31st March 1935 ..	1,27,089	
Probable expenditure during 1935-36 and April 1936..	49,375	
		—1,76,464
Approximate balance at the termination of the present sanctioned period of five years		93,876

I, therefore, propose that the above balance may be made available for meeting the total expenditure of Rs. 81,921 of the proposed extension period of the scheme so that the Indian Central Cotton Committee will not require to make available any fresh amount on this account. Moreover the Deputy Director of Agriculture, N. C. D., estimates total receipts amounting to about Rs. 18,000 on the basis of actual receipts so far obtained since the commencement of the scheme, and if this amount is deducted from the total cost of the extension period of the scheme (Rs. 81,921) the net cost of the scheme will be Rs. 63,921 for three years and this amount can be easily met from the balance available in the original scheme.

3. I would, therefore, request that you will be so good as to place these proposals before the Agricultural Research Sub-Committee of the Indian Central Cotton Committee at the ensuing meeting to be held on 9th and 10th January 1936 for consideration.

Banilla Cotton Seed Distribution Scheme in Khandesh.

Proposal for Extension

The Scheme.—The introduction of Banilla cotton into general cultivation in [illegible]

cotton fetched a premium of Rs. 2 to 3 per maund of 168 lbs of seed cotton over the local cotton. As there was a great public demand for Banilla cotton and as there was no alternative improved type immediately available, a Seed Distribution Scheme for Banilla Cotton in Khandesh was launched by the Indian Central Cotton Committee in May 1931 for a period of 5 years, pending further research aimed at producing a cotton superior to Banilla in respect of spinning performance and resistance to wilt disease.

This period will expire by the end of April 1936. It is now proposed that the scheme be extended for a further period of 3 years. The total cost for the extended period is estimated to be Rs 81,921 against which the total receipts will be Rs. 18,000, the total net cost thus being Rs 63,921, i e., Rs 21,307 per year.

Brief review of work done—As laid down in the original scheme pure seed of Banilla cotton was annually multiplied through four successive stages at the end of which the seed was distributed for general cultivation. Under Stage I "selfed" seed was produced on the Government Farm at Dhulia For Stage II a farm of 206 acres was rented at Bhadgaon (East Khandesh district) Stage III was operated in a small group of villages in the Amalner Taluka of East Khandesh District. Under Stage IV the seed multiplication areas were organised in five talukas, viz, Amalner, Erandol, Pachora and Chalisgaon of the East Khandesh District and Shirpur Taluka of the West Khandesh District. A sixth centre on a small scale in the Malegaon Taluka of the Nasik District was subsequently added.

The following two statements show the areas organised for the multiplication of the pure seed under the different stages and the quantities of seed produced during the past five years —

(a) *Seed multiplication areas*

Year	Areas				
	Stage I	Stage II	Stage III	Stage IV	Total.
	Acres	Acres	Acres	Acres	Acres
1931 32 . .	6½	93	871	1,909	2,879½
1932-33	6¼	102	1,012	3,449	4,569¼
1933-34	[illegible]	104	1,359	11,355	12,824¼
1934-35 ..	12½	107	1,852	14,020	15,991½
1935-36 .	10½	106	2,089	13,909	16,114

(b) *Quantities of pure seed produced.*

Year.	Quantities in lb				
	Stage I.	Stage II	Stage III.	Stage IV.	Total
	Lbs	Lbs	Lbs	Lbs.	Lbs.
1931-32 .. .	864	8,386	36,920	99,570	145,740
1932 33 ..	1,095	15,860	140,920	467,478	625,353
1933-34 ..	1,095	20,000	176,410	1,255,810	1,453,315
1934 35 .. .	1,158	18,590	245,000	1,642,314	1,907,062
1935-36 ..	Current	year			

The above figures indicate a satisfactory progress of the scheme. The seed distribution was mainly done in the five centres of the scheme. Small demands from other talukas were also met. The area now grown under Banilla cotton is estimated to be 130,000 acres representing nearly 10 per cent. of the total area under cotton in the Khandesh tract. The accompanying map shows the distribution of the area under Banilla in the various talukas of the Khandesh tract.

Necessity of extension of the scheme.—It has been stated above that the area covered under Banilla cotton is at present about 130,000 acres. This area, however, is spread over a wide range in the various talukas. Experience of the past five years has indicated that Banilla cotton gives more satisfactory yield and better quality of staple in the black soil area than in the lighter descriptions of soil in Khandesh and further that the black soil tract free from wilt and situated in the Tapti belt in the talukas of Shahada, Nandurbar, Shirpur, Chopda, Sindkheda, Amalner and Erandol is more favourably adapted for the growth of Banilla cotton. The extent of such a tract is about 300,000 acres. It is for covering up this area in a compact block that the scheme needs extension.

The original Banilla Scheme was started pending further research of superior type of cotton. Success in the research is well within sight. Some promising strains of Verum type have been isolated on the Jalgaon Farm and have been found to be highly wilt resistant and to possess a staple length of 9/10th of an inch capable of spinning 30's and over. The progress made so far in the isolation of these strains warrants the hope that one of them is likely to be found suitable for general cultivation in Khandesh. The trials of these new selections for yield performance and staple quality under varying soil and climatic conditions will be undertaken from the coming season. These trials shall have to be carried on for a period of two or three seasons before finally deciding the suitability of the type desired for Khandesh. The rapid production and distribution of pure seed of the prospective cotton would need the whole of the organisation of the Banilla scheme.

Future line of work.—All the four stages of the multiplication of pure seed at present in operation will also be required in future and these, as modified to suit the work in the proposed compact block will be as under :—

Stage.	Where located.	Character of work to be done.
I.	Bhadgaon Farm	1,000 lbs. of selfed seed to be produced.
II.	Bhadgaon Farm	Seed multiplication on 100 acres.
III.	A small group of villages in Amalner taluka.	This will be the inner reserved area on which seed multiplication will be made on 1,000 acres.
IV.	Amalner and Shirpur talukas ..	This will be the outer reserved area on which seed multiplication will be made on 8,000 acres.
V.	Six centres, viz., Shahada, Shirpur, Chopda, Amalner, Erandol and Nandurbar.	Seed distribution for an area of 60,000 acres.

Stage I for producing selfed seed and Stage II for the multiplication of the selfed seed will be carried on at one place, viz., Bhadgaon Farm with a view to control the work more efficiently at reduced cost. The lease of the Bhadgaon Farm will be renewed for a further period of three years. Under Stage III the same group of villages in the Amalner taluka will be retained; whereas under Stage IV it is intended to concentrate the work of seed multiplication in the two talukas of Amalner and Shirpur only on an area of 8,000 acres. Thus at the end of Stage IV about 1,500,000 lbs. of pure seed will be obtained annually which will be enough for covering an area of about 60,000 acres.

Staff.—The present staff employed will continue. In Stage I, however, only one Kamgar will be retained instead of three owing to the shifting of the selfing work from the Dhulia Farm to Bhadgaon and his post will be converted into that of a counter.

Director of Agriculture will advance money for the purchase of seed as well as the incidental expenditure of recoverable nature in connection with the stocking ... pots, transport, etc. ... hould provide funds ... he estimated annual ... 307, i e, Rs 81,921

		Rs.	Rs.
I	*Non-recurrent for Stage II*		600
II	*Recurrent—*		
	Stages I and II.		
	Pay of Establishment	12,162	
	Travelling allowance	600	
	Contingencies	22,500	35,262
	Stages III, IV and V (part)		
	Pay of staff	34,359	
	Travelling allowance	4,500	
	* Contingencies	7,200	46,059
	* Roguing .. Rs. 1,700		
	Rent .. „ 360		
	Office expenses .. „ 340		
	Rs 2,400 per year.		
	Total		81,921

The receipts against this expenditure will be the income of the Bhadgaon Farm under Stage II which are estimated to be Rs 6,000 per year, i e, Rs 18,000 for three years.

The net cost of the scheme during the extended period will thus be Rs 21,307 per year, i e, Rs 63,921 for three years

Conclusion—The superiority of the Banilla cotton over the local in point of its ginning percentage and quality of staple cannot be gain-said. It has obtained a premium, ranging from Rs 10 to Rs 15 per *khandy* of 784 lbs over the local The cotton is found to have a ready sale in the local markets of Amalner and Dhulia and in favourable localities, it has maintained its capacity to spin 14's to 16's counts In view, therefore, of the consumption of this cotton to the extent of 15,000 bales in the local mills, the desirability of extending the period of this cotton seems all the more necessary pending its replacement by a still superior and highly wilt-resistant type of cotton

To sum up:—

(1) The Banilla Seed Distribution Scheme should be extended for a further period of three years

(2) The area of its operation should be concentrated in the Tapti valley.

(3) The whole of the present staff with the exception of the two Kamgars of Stage I should continue

(4) The scheme is estimated to cost gross expenditure of Rs 81,921 against the gross receipts of Rs 18,000 The net cost would be Rs 63,921 for the period of three years

(5) There has been a balance of about Rs 93,876 with the Indian Central Cotton Committee from the funds sanctioned for the ... nal five-year scheme. This balance may be made available to ... ost ... extension scheme.

APPENDIX IX.

SUBJECT 24.—*Report of the Cotton Forecast Improvement Sub-Committee.*

Secretary's Note.

The Cotton Forecast Improvement Sub-Committee met at 3 p.m. on Thursday, the 9th of January 1936, and considered the following subjects which are also on the agenda of the full Committee :—

Reports of Enquiries into the Village Consumption of Cotton (Subject 26).

Central Provinces and Berar Report.—In view of the explanation offered by the Director, Land Records, regarding the unreliability of figures of past censuses of cotton carts to verify village consumption figures obtained from the enquiry, the Sub-Committee recommends that the Central Provinces and Berar Report may now be approved.

United Provinces Report.—The amendments to the Report put forward by the Statistician to the United Provinces Government may be accepted and the Report approved. In general, it is, however, necessary to check consumption figures for the districts of one province with those for the adjoining provinces, when available.

Sind.—As no non-cotton-growing district of Sind was investigated during the enquiry, the Sub-Committee recommends that the consumption of cotton in the villages of Larkana district be investigated.

Bihar.—The proposals made by the Director of Agriculture may be approved.

Madras.—The Director of Agriculture has agreed to find out what happens to the cotton brought into non-cotton-growing districts.

The Sub-Committee further recommends that Madras, Sind and Hyderabad authorities be requested to send in their respective reports in time for discussion at the next meeting of the Sub-Committee.

Post-Mortem Examination of Cotton Forecasts of 1934-35 Season (Subject 25).

Sind.—The under-estimation noticed in Sind crop forecasts is probably due to the low normal yield at present used for computing the crop of Hyderabad and Nawabshah districts. The Sub-Committee, therefore, recommends that the normal yield of these two districts be revised in the light of available information.

There is a large discrepancy between the commercial crop of 448,379 bales accounted for in the block, " Sind and British Baluchistan (including Karachi)," and the net-export of pressed and loose cotton amounting to 344,065 bales from the block " Sind and British Baluchistan (excluding Karachi)." As Karachi grows no cotton, it is to be inferred that this discrepancy is due to the variation in trade stocks reported from Karachi being incomplete. This point should be further examined.

United Provinces and Bombay.—If village consumption is ignored the total quantity of ginned cotton is very near the forecasted crop, and the difference between the commercial crop and the forecasted crop is also small. This is satisfactory.

Punjab.—In the case of the Punjab, further efforts to improve the accuracy of the States' forecasts should be made by requesting the Government of India to draw the attention of the States to the need for compiling their forecasts with greater care.

Central Provinces and Central India.—The position with regard to these two crops appears to be very satisfactory.

Madras.—The under-estimation of the crop does not appear to be much, but until the question of the total amount of cotton that is annually used for village consumption is settled, it might be premature to make any further comment on this crop.

Rajputana.—The Sub-Committee understands that some of the States in Rajputana are not bestowing as much care on the preparation of cotton forecasts as they should. It is, therefore, recommended that the States who are members of the Institute of Plant Industry, Indore, should be approached through the Board of Governors of the Institute to do the needful. The Deputy Director of Statistics will supply a list of the States concerned.

Nizam's Territory.—The Director of Statistics thinks that the discrepancy is probably due to the export of cotton by road, and has, therefore, agreed to examine this point.

Cotton Crop Forecast Improvement Scheme in the Bombay Presidency—Proposed permanent retention of the Staff or extension of Scheme for three years (Subject 27).

The Sub-Committee recommends that this scheme be extended for a period of [illegible]

should continue the work at their own expense; the provincial officers concerned might include other crops as well in their investigations

Crop Atlas of India—Varietal Cotton Map (Subject 44)

The Sub-Committee recommends that a varietal cotton map of India based on the Revised Scheme of Trade Classification of Indian cotton should be incorporated in the new edition of the Crop Atlas of India. The attention of the Bombay and Madras Governments, who have not yet replied to the enquiry of the Director-General of Commercial Intelligence and Statistics should be drawn to the fact that the preparation of this map is being held up for want of their replies.

The Sub-Committee recommends—

(1) that the request of the Director of Agriculture, Central Provinces, may be agreed to,

(2) that item IX (2) in the Revised Scheme may be retained,

(3) that Sironj, Chhabra and Pirawa Parganas of Tonk, and Jhalawar and Partabgarh States may be included under "Central India,"

(4) that, in the Varietal Map, Bengals, Oomras, Hyderabad, Gaorani, Central India, Broach, Surti, Dholleras, Southerns, Tinnevellies, Salems, Comillas and Burmas may be shown by distinctive colours The relation between Oomras and Central India crops and between Broach and Surti crops can be brought out by a suitable choice of like colours or different shades of the same colour,

(5) that Americans, Verum, Banilla and Cambodias may be shown in their respective tracts by hatching,

(*N B.*—Sub-classes such as Malvi and short-staple Dholleras need not be shown in the map)

and (6) that the sub-classes United Provinces *Deshi*, Punjab *Deshi*, Sind *Deshi*, Rajputana *Deshi*, Berar Oomras, Central Provinces Oomras, Nimar Oomras, Khandesh Oomras, Barsi-Nagar Oomras, Hyderabad Oomras, Gujerat Dholleras, Kathiawar Dholleras, Cutch (Dholleras), Kumpta and Upland, Bijapur and Bagalkot Jowari, Westerns, White and Red Northerns, Warangal and Cocanadas and Chinnapathi may be demarcated by boundaries and named

P. H RAMA REDDI

APPENDIX X.

SUBJECT 28.—*Report of the Standing Finance Sub-Committee.*

(*a*) *Balance Sheet.*
(*b*) *Financial Statement.*
(*c*) *Revised Estimates*, 1935-36.
(*d*) *Budget*, 1936-37.
(*e*) *Auditors' fees.*

Secretary's Note.

Three meetings of the Sub-Committee were held since the last meeting of the Committee in August 1935. Mr. M. Durutti, having resigned, his place on the

Sub-Committee was taken by Mr. A. A. Sarantides, who succeeded the former on the Committee.

2. At its meeting in September 1935, the Sub-Committee sanctioned an additional grant of Rs. 42,303 for the Punjab Cotton Failure Scheme, thus raising the total grant to Rs. 1,48,833. The additional grant sanctioned was required as the Plant Physiologist was appointed on a higher scale of pay than that originally provided for and also on account of the payment of leave and pension contributions on his account.

3. The Sub-Committee sanctioned the appointment of an additional Junior Clerk in the Statistical Section of the Secretary's office on Rs. 60—3—90.

4. In pursuance of the Committee's decision in January 1934, the Sub-Committee considered the question of placing in order of priority for starting schemes extended and those sanctioned by the Committee at its meeting held in August last, and decided that the Scheme for Survey of Cottons in Rohilkhand and Bundelkhand, United Provinces, should be continued and that the Scheme for the extension of B.D. 8 cotton in Broach District should be started as early as possible. As regards the scheme for the distribution of Jayawant and Gadag No. 1 cottons in the Southern Division of the Bombay Presidency, the Sub-Committee decided that action should be delayed till the Vice-President had a consultation with Dr. W. Burns, Director of Agriculture, Bombay Presidency, on the return of the latter from leave and that in the meanwhile the Government of Bombay should be asked for their share of the cost of the scheme.

5. The Sub-Committee considered a request from Rai Saheb G. R. Dutt, Entomologist to the Government of the Central Provinces, for the grant of an honorarium and a monthly remunerative allowance for supervising the Central Provinces and Berar Entomological Research Scheme financed by the Committee. In view of the Committee's decision that the practice of granting personal allowances to officers serving under Local Governments should be put an end to, the Sub-Committee was unable to grant the request.

6. The Sub-Committee considered and refused the request of the Director of Agriculture, H. E. H. the Nizam's Government, for a revision of the scale of pay of the 1st and 2nd Assistant Cotton Research Botanists working on the Hyderabad Botanical Research Scheme.

7. In pursuance of a resolution passed by the Sub-Committee at its meeting held in October 1932 fixing the basic pay of the Secretary of the Committee at Rs. 1,600—50—1,800 *plus* Overseas pay of Rs. 300 *plus* House Rent Allowance of Rs. 250 per mensem, the Government of India were addressed by the President. The proposals were, however, not accepted by the Government of India.

8. At its meeting in March 1935, the Sub-Committee decided to apply the Government of India Model Leave Rules, 1934, as for officers on contract, to its own employees engaged on its schemes sanctioned for specific periods and this decision was confirmed by the Committee at its meeting held in August last. As it was thought that the application of the new rules might adversely affect those employees of the Committee who under the rules to which they were previously subject had accumulated leave in excess of the limits laid down in the new rules, the Sub-Committee approved of the suggestion made by the Secretary that such employees should be permitted to add to their leave accounts the excess leave earned by them over the limits prescribed in the new rules, but to debar them from earning any further leave until the excess had first been wiped off.

9. The Committee at its meeting held in August last considered proposals for the extension of the Bikaner Gang Canal Scheme for a period of five years and decided that if Mr. Hutchinson wanted a sub-station in the Bengals area for his work on genetics he might be provided with one either at Raya Farm or Delhi or Ganganagar whichever was the least expensive. The above decision was communicated to the Director, Institute of Plant Industry, Indore, and the views of Mr. Hutchinson forwarded by him together with proposals for the extension of the Bikaner Scheme for a further period of five years were considered by the Sub-Committee. In view of the fact that the scheme was due to terminate on the 31st December 1935, the Sub-Committee decided to extend it only up to the 31st March 1936 and to leave the question of its further extension to this meeting of the Committee. This subject is dealt with under a separate item on the agenda.

10. [illegible] appointment of auditors [illegible] that Messrs S. B [illegible] the year 1936-37,

11 A Balance Sheet of the audited accounts of the Committee's funds and of the Provident Fund as on the 30th September 1935 and also the Financial Statement as on the 30th November 1935 are attached for information. Rs 14,60,793-0-2 of the Committee's securities are invested in Government paper and Rs. 6,13,040-10-0 in long-dated Corporation Bonds The market value of the Committee's securities, as will be seen from the Financial Statement, has appreciated by Rs. 4,54,225. To finance all the schemes, which are to be put in operation, it will be necessary in the near future to sell some of the securities.

12 Revised Estimates of Receipts and Expenditure for the current financial year are submitted for approval Receipts from the cess up to the 31st March 1936 have been estimated at Rs. 6,50,000 against the original estimate of Rs 6,00,000 and interest at Rs 1,24,000 against Rs. 1,16,000 in August last. Under Miscellaneous Receipts Rs. 2,01,000 have been shown against Rs. 2,10,116 in August last. Out of this sum Rs. 1,96,787-13-7 represents profit on sale and conversion of securities.

The total expenditure for the current year is now estimated at Rs 12,01,741 as against Rs 12,92,600 in August last, the decrease of Rs. 90,859 being chiefly due to savings as detailed in the Revised Estimates. The closing balance (excluding recoverable loans amounting to Rs 12,083-12-10) at the end of the current year will remain at Rs 24,13,195-11-5 as compared with Rs 26,37,099-11-7 at the end of last year

13. The draft budget for 1936-37 is also submitted for approval The estimates of receipts for cotton cess are the same as budgeted last year, viz Rs 6,00,000 The figure under interest has been reduced from Rs 1,16,000 to Rs 1,10,000 in view of the necessity which is likely to arise for the sale of some of the securities. The budget will need revision when final decisions are arrived at [illegible] proposals under consideration at this meeting of the Committee. Under Miscellaneous Receipts, the usual provision of Rs 4,000 has been made This does not take into account any profits that may be realised if securities are sold in the course of the year

14 The Sub-Committee requests that it may be empowered to [illegible] the administrative changes that may be necessary in the Secretary's office owing to the appointment of Deputy Secretary being held in abeyance by the Government of India after consideration of a report by the Secretary on the working of the present arrangements.

15. A Selection Sub-Committee consisting of the following members was appointed to select a candidate for the post of Biochemist in the Punjab [illegible] Failure (Physiological) Research Scheme rendered vacant by the resignation of the present incumbent on the ground of ill-health —

The President,
The Vice-President,
Mr. S. D. Saklatvala,
Mr. H. R. Stewart,
Dr. W Burns,
Dr. T. S. Wheeler

16. The Government of India have, in accordance with the Committee's Resolution passed at its last meeting, accorded sanction to a pay of Rs. 1,000—50—1,100 for the Publicity Officer in modification of the previous orders passed by them sanctioning a pay of Rs. 950—1,000 [illegible] 000.

17. At the request of the Imperial Council [illegible] earch the [illegible] appointment of Dr. Nazir Ahmad, Director, T [illegible] ry, as member of the Soil Science Committee of the Cou [illegible]

APPENDIX XI.

SUBJECT 29.—*Lancashire-Indian Cotton Committee—Work of—Note by Mr. H. C. Short, Cotton Commissioner.*

Secretary's Note.

Mr. H. C. Short, Cotton Commissioner, Lancashire-Indian Cotton Committee, has forwarded the attached note giving a short account of the work of that Committee.

P. H. RAMA REDDI.

NOTE.

The work of the Lancashire-Indian Cotton Committee continues to show good progress. Through the medium of meetings, extensive propaganda and personal interviews they are encouraging many spinners to use Indian cotton, who have not tried it before.

In September, in response to a request from the Committee, the British Cotton Industry Research Association organised for the benefit of its members a display of yarns and cloth made in whole or in part from Indian cotton. The counts ranged from 8's to 40's, and the demonstration included straight Indian cottons and mixings of Indian and American cottons.

This exhibition was attended by large numbers of firms and great interest was shown in it.

On his return from India Mr. H. C. Short had numerous interviews with spinners and manufacturers in different parts of Lancashire, the object being to help them with any difficulties they may have come across and to discuss the different varieties of Indian cotton and the uses to which they might be put.

Mr. S. Taylor, one of the principal liaison officers of the Shirley Institute was appointed during the year to interview manufacturers and spinners on behalf of the Committee. As he has had considerable experience in Indian cotton at the Shirley Institute, he has helped to solve many technical difficulties which have been encountered.

Intensive research work on Indian cottons continues at the Shirley Institute and between 40 per cent. and 50 per cent. of their time is now devoted to this section.

It is encouraging to note that spinners are taking much more interest in Indian short stapled cottons than was formerly the case and imports of this cotton are steadily increasing.

The Lancashire-Indian Cotton Committee have decided to again participate in the British Industries Fair in London in 1936.

APPENDIX XII.

SUBJECT 42.—*Sir Albert Howard's criticism of the Committee's work and policy.*

Secretary's Note.

The attached extract from a lecture delivered by Sir Albert Howard before the Royal Society of Arts on November 22nd 1935, is for consideration.

It is evidently the strong conviction of Sir Albert Howard in the possibilities of the Indore method of making compost, that has been responsible for his sweeping criticism that "The funds of this body are now largely devoted to matters of only secondary importance." Having been out of touch with the Committee for the past four years, Sir Albert does not probably know that out of the 42 lakh rupees so far spent by the Committee on agricultural research no less than 14 lakh rupees have gone to the Indore Institute where the process so highly commended by him has been evolved. A third of the expenditure on agricultural research must, therefore, even according to Sir Albert, not fall in the category of "matters of only secondary importance."

Although his criticism of the past and present research policy of the Committee is merely an expression of an opinion, which may not be shared by most of the agricultural officers and research workers on cotton in India, his long connection

with India and this Committee almost makes his opinion appear as a statement of accepted truth This is borne out by the fact that a trade member of the Committee, who has seen this criticism, has even suggested that Sir Albert's criticism might be made a reason for reviewing the past activities of the Committee and the future policy—a measure which the Committee thrice undertook on its own accord in the past, once in 1925, then in 1930 and again in 1934.

Though it is true that the Committee has not so far financed any purely soil or manurial research scheme as such, in many of the botanical and physiological schemes of the Committee this aspect of the successful growing of cotton has

Imperial Council of Agricultural Research, increasing attention has also been paid to this subject

Indian soils, and the preparation of cheap synthetic manure from town refuse and waste materials All the work on soils that is still in progress in the different parts of India shows that Sir Albert's opinion is not the last word on the subject of the improvement of the fertility of Indian soils When so much work is already in progress, there is perhaps no need for this Committee to take up a work which affects all crops, as so many problems affecting cotton remain to be studied.

P. H. RAMA REDDI.

Extract from a lecture delivered by Sir Albert Howard, C.I.E., M.A. before the Royal Society of Arts on November 22nd, 1935.

* * * *

III. THE ADOPTION OF THE INDORE PROCESS OUTSIDE PLANTATION INSTITUTIONS.

The spread of the Indore process among the cultivators of India and other tropical countries is nothing like so spectacular as the extremely rapid progress that has been made in the plantation industries. A little consideration will show why this is so. The plantation industries are highly organized, and the estates are often arranged in large groups controlled by a small London directorate. The consideration of any new process or any new idea likely to benefit these industries is quickly undertaken, and a decision at once leads to action. London is the place where things happen, even in agriculture.

In peasant agriculture there is no similar organization for taking [illegible] decisions over wide areas. All that is possible is to interest individuals with local influence, so that a number of centres are firmly established for the demonstration and propaganda of a new principle In course of time these local centres will exert their influence on the countryside.

A large portion of the money spent on working out the Indore process was contributed by the cultivators of India in the form of a small cess on raw cotton, which cess is administered by a body known as the Indian Central Cotton Committee. The cotton crop is not in the

establish the supreme importance of organic matter in cotton ... study of the yield of cotton is needed to results can be seen in every village ... The yield good crops of fine healthy ... cotton plants are, by compariso ... wet seasons these differences are ... very

On the alluvium of North-West India, a similar limiting factor occurs. Here cotton is grown mostly on irrigation, which causes the soil particles to pack, and in due course the plants, particularly American varieties, show by their growth that they are not quite at home. The anthers often fail to function properly, the plants are unable to set a full crop of seed, the ripening period is unduly prolonged and the fibre lacks strength, quality and life. The cause of this trouble is again poor soil aeration, which appears on these soils to lead to a very mild alkali condition. This, in turn, prevents the cotton crop from absorbing sufficient water from the soil. One of the easiest methods of preventing this packing of the soil particles is to apply dressings of humus.

At the Sakrand Experiment Station, Mr. W. J. Jenkins, the Chief Agricultural Officer in Sind, who was one of the first in India to adopt the Indore method, has already proved that humus is of the greatest value in keeping the alkali condition in check, in maintaining the health of the cotton plant and in increasing the yield of fibre. The Indore process is now well established on all the Government farms in Sind. At Sakrand, for example, no less than 1,250 cartloads of the finished product were prepared in 1934-35 from waste materials such as cotton stalks and crop residues. In a report, dated October 1st, 1935, Mr. Jenkins writes:—

"It is already abundantly evident from the results obtained at Sakrand and other centres in the barrage areas that the scientific utilisation and adequate supply of organic manures must play an important part in the ultimate solution of the problem of maintaining soil fertility and preventing the accumulation of alkali salts."

The manufacture of compost in Sind has now spread from the Government farms to the demonstration areas, which are cultivated on the share system by the zamindars themselves. From the interest shown by these cultivators, it is obvious that it is only a question of time before the Indore system becomes well established in the villages.

Equally interesting results have been obtained by Colonel Cole, C.B., C.M.G., at Coleyana in the Montgomery District of the Punjab, where a compost factory on the lines of the one at the Institute of Plant Industry, Indore, was established in June 1932. At this centre all available wastes are regularly composted. The cotton crop has distinctly benefitted by the dressings of humus; the quality of the fibre has improved; higher prices are being obtained; the irrigation water required is now one-third less than it used to be. The neighbouring estates have all adopted composting, and inquiries about the process are being received from the large cultivators in the neighbourhood.

A promising beginning, therefore, has been made in the removal of the factor which is holding up the yield and depressing the quality of Indian cotton. It is unfortunate for the multitude of small cotton growers in India that the resources of the Indian Central Cotton Committee are not being energetically employed in getting the Indore process taken up all over the country. The funds of this body are now largely devoted to matters of only secondary importance. Large sums are being spent every year on entomological schemes, from which the men who contribute the cotton cess are not likely to derive any great benefit. Far too much attention is being paid to plant breeding and to the distribution of seed. It is true that, on the Government farms and in areas of high fertility, improved varieties of cotton have done remarkably well, but it should be borne in mind that to expect the plant breeder to find a variety which will withstand the consequences of a colloidal condition on the black soils and an incipient alkali phase on the alluvium is to ask the impossible. To achieve any lasting and permanent improvement in the production of cotton in India, the facts must be squarely and honestly faced. The factor limiting growth, namely, poor soil aeration, must first be removed so that the work of the plant breeder can produce its full effect. It is only by the combination of better soil conditions with improved varieties that the cotton growers of India can materially benefit from agricultural research.

Press Communique as amended by the Committee.

The criticism by Sir Albert Howard of the work of the Committee in a lecture which he delivered at a meeting of the Royal Society of Arts in November 1935 was considered by the Indian Central Cotton Committee at its half-yearly meeting held on the 13th January 1936. The subject of the lecture was "The manufacture of Humus by the Indore Process," and in the course of it Sir Albert Howard referred to the success achieved in the conversion of agricultural waste products

into humus by means of a process worked out by him at the Institute of Plant Industry, Indore, and the effects of this humus on the fertility of the soil. He

...ontributed to ... attention was ... The Indian ... indeed has, on several occasions, gone out of its way to invite it but Sir Albert Howard does not give a true picture either of the Committee's obligations or work. In the

... Committee and Agricultural Departments alike and Sir Albert Howard's lecture unfortunately betrays a lack of knowledge of what has been done since he left India. The maintenance of soil fertility and the raising of it to a higher level is a fundamental agricultural problem and not a special problem of cotton cultivation

...ntal part of the work of Agricultural Departments; it is not peculiar to the cotton problem and the Indian Central Cotton Committee has deliberately concentrated on problems connected with cotton in preference to propaganda on a subject which is common to the agriculture of all crops in all parts of the country Sir Albert Howard's statement regarding the entomological schemes undertaken by the Committee is a travesty of facts. Two completed entomological schemes financed by the Committee, one in the Bombay Presidency and the other in the United Provinces, now show substantial benefits to the cultivators, and as these results were obtained since Sir Albert Howard's departure from India, they strikingly demonstrate that the material possessed by him regarding the achievements of the Indian Central Cotton Committee and used by him for his lecture was singularly out of date In 1934 the Committee held a special meeting ... position of cotton resea... yield and quality of c... absorbed an undue pro... first importance as it put money into the pockets of the cultivator and good cotton into the mills Incidentally, varieties of cotton have now been found which tolerate "the colloidal condition on the black soils" and certain types of Sind cotton now do very well in "the incipient alkali phase of the alluvium." The Indian Central Cotton Committee is in complete agreement with Sir Albert Howard's observation "that it is only by the combination of better soil conditions with improved varieties that the cotton growers of India can materially benefit from agricultural research" which indeed is accepted ...

... responsibility.

APPENDIX XIII.

SUBJECT 44 —*Crop Atlas of India—Varietal Cotton Map.*

Secretary's Note.

In pursuance of a request received from the Director-General of Commercial Intelligence and Statistics for ... trade classification ... the

classification of Indian cotton which would be acceptable to the cotton trade in general. Accordingly, the Committee nominated *Sir Purshotamdas Thakurdas* and Dr. W. Burns to serve as its representatives on this Joint Committee.

2. This Joint Committee formulated in due course a scheme of trade classification, and the East India Cotton Association in forwarding it to the Director-General of Commercial Intelligence and Statistics in November 1933 remarked that "the precise delimitation of areas recommended may be left to the Directors of Agriculture of Provinces and States. By precise delimitation they mean a description of area by States (where a complete State is included), Districts (where a complete district is included) and Talukas (where a complete district is not included). Units less than a Taluka should not be used." The Association further suggested that Government should prepare a cotton map showing the classifications and districts as recommended by them.

3. At their meetings held in January 1934, the Cotton Forecast Improvement Sub-Committee and the Indian Central Cotton Committee approved the proposed scheme with minor modifications, the question of suitable specific names for the sub-classes under "Oomras" being left to be decided in consultation with the Directors of Agriculture of Bombay, Hyderabad and Central Provinces. This was done in consultation with these officers and the East India Cotton Association, and the classification was sent to the Director-General of Commercial Intelligence and Statistics in July 1934.

4. In the meanwhile, in answer to an enquiry made regarding the classification of S. M. C. States and Satara *Jagirs* under "Westerns" and "Coompta and Uplands" in the new classification, the Director of Agriculture, Bombay, put forward a classification for the cottons grown in the Southern Division of the Presidency, which was slightly different from the one already approved. This proposal was considered at the August 1934 meeting, and it was left to Dr. Burns to discuss the matter with Mr. Haridas Madhavdas and come to an agreement. This was done.

5. In November 1934, this office sent to the East India Cotton Association an exact delimitation of the areas according to the accepted Revised Scheme of Classification. The East India Cotton Association carefully examined it and signified their approval on the 28th March 1935 subject to a few minor changes. The Revised Scheme of Trade Classification as finally approved and sent to the Director-General of Commercial Intelligence and Statistics in April 1935 is given in Enclosure I.

6. The Director-General has since been referring the new scheme to the respective forecast authorities in the provinces and States for criticism or ratification, and to say whether it would be possible to supply figures for the last ten years on the new basis. The objections so far received in answer to this enquiry are the following :—

Punjab.—(Items I (2) and II (2) in the Revised Scheme).

7. As there is no change in the existing classification, the Director-General asked only for the exact delimitations of the *Deshi* and *American* varieties by districts and talukas. The Director of Agriculture has accordingly furnished a statement showing the acreage during 1934-35 under American and *Deshi* cottons in each of the districts included in the four cotton growing zones of the Punjab. So far as British Punjab and Punjab States are concerned, there exists, therefore, no difficulty in making an exact delimitation.

North-West Frontier Province.—(Item I (2) in the Revised Scheme).

8. In this case the Director-General wanted to know whether the change from the existing trade name "Bengal-Sind Sind-Punjab" to the proposed name "Bengals-Punjab *Deshi*" was acceptable. In reply, the Revenue and Divisional Commissioner, North-West Frontier Province, has replied that the proposed trade name seems suitable. He has, however, forwarded a representation from a leading cotton merchant in Peshawar requesting that Peshawar cotton should be classed as "Oomras." and allowed to be tendered against Oomras Contract "or at the most Rs. 10 per *candy* below the Oomras standard." This is a matter for the cotton trade and, if approved, this representation may be brought to the notice of the East India Cotton Association without any comment from the Committee. No change is necessary in the Revised Scheme.

Sind.—(Items I (3) and II (1) in the Revised Scheme).

9 As in the case of the Punjab, the Director-General asked for an exact delimitation of *deshi* and *Americans*, and whether the latter was being grown in Khairpur State. The Chief Agricultural Officer has since furnished the necessary information.

Central Provinces and Berar.—(Items III (1) to (6) in the Revised Scheme.)

10 The Economic Botanist for Cotton objects to the sub-dividing of Verum crop under C. P., Berar, and Nimar on the ground that, on analogy with the Oomras crops of these tracts, the Trade would come to look upon Berar Verum, which forms the bulk of Verum crop, as something inferior to C. P. Verum, and thus depress the prices for Berar Verum. The Director of Agriculture agrees with this view so far as C. P. and Berar Verums are concerned. As regards Nimar Verum he considers that it should be shown separately since the bulk of the so-called Nimar Verum is Buri mixed with Verum and Oomras. The Director, Land Records, has agreed to supply information regarding the exact territorial division by districts and talukas if the point raised in the Director of Agriculture's letter is settled. Figures for the past ten years cannot be supplied.

11 The point raised by the Director of Agriculture is for consideration. It would be far easier, and probably advisable too, to remove the misunderstanding, if any, about the quality of Berar Verum than to deny the Trade information about the quantity of Verum cotton grown in Berar, which they have asked for.

Hyderabad.—(Items III (10), IV, IX (2), IX (4) (part) and IX (6) (part) in the Revised Scheme.)

12 The only doubtful point in this classification is whether it is absolutely necessary that item IX (2) should be shown separately from item IX (1). The East India Cotton Association is not at all particular about it, and they simply agreed to it because the Director of Agriculture, Hyderabad, wanted it. To the Director-General of Commercial Intelligence and Statistics' enquiry, the Director of Statistics, Hyderabad State, has now confirmed the Director of Agriculture's views, on the ground that Raichur Kumpta and Upland "is superior to the common Kumpta and Upland."

13 The Director of Statistics appears to be under a misapprehension. Item IX (1) comprises Gadag-1 and Jayawant cottons grown in and around Hubli and Gadag as well as ordinary Kumpta and Upland. Raichur Kumpta and Upland would not therefore lose anything by being lumped with the above cottons. Had there been a separate class for Gadag-1 and Jayawant grown in Bombay Presidency, and Raichur Gadag-1 and Jayawant been lumped with Bombay-grown ordinary Kumpta and Upland, the objection of the Director would have been reasonable. It is therefore for consideration whether a separate item IX (2) is necessary.

Baroda.—(Items VI (part), VII (part), VIII (1) (part), VIII (2) (part), VIII (3) (part), VIII (4) (part) in the Revised Scheme).

14 It is very satisfactory to note that the Director of Agriculture has simplified the problem of delimitation by assigning the whole of Mehsana district under item VIII (1) and the whole of Amreli district under item VIII (4). The former is in any case necessary, as according to the recommendation of the East India Cotton Association Mehsana district is to be notified as a protected area under the Baroda Cotton Transport Act.

Central India.—(Items I (1) (part), V (1) and (2) in the Revised Scheme).

15 The Director-General asked the Hon'ble the Agent to the Governor-General in Central India to obtain the views of the States concerned on the above classification, and also to ascertain from them whether it would be possible to report "Malvi" separately in their forecasts. The replies received so far are as follows:—

16. *Dhar*.—The proposed classification is inadequate and requests that Cambodia, Banilla and American cottons grown in the State should be shown separately from Malvi *deshi* and Nimar *deshi*. There does not seem to be any objection to the Durbar furnishing these figures separately in Dhar forecasts. These details can, however, be omitted from the All India forecasts, as separate

classification of Indian cotton which would be acceptable to the cotton trade in general. Accordingly, the Committee nominated Sir Purshotamdas Thakurdas and Dr. W. Burns to serve as its representatives on this Joint Committee.

2. This Joint Committee formulated in due course a scheme of trade classification, and the East India Cotton Association in forwarding it to the Director-General of Commercial Intelligence and Statistics in November 1933 remarked that "the precise delimitation of areas recommended may be left to the Directors of Agriculture of Provinces and States. By precise delimitation they mean a description of area by States (where a complete State is included), Districts (where a complete district is included) and Talukas (where a complete district is not included). Units less than a Taluka should not be used." The Association further suggested that Government should prepare a cotton map showing the classifications and districts as recommended by them.

3. At their meetings held in January 1934, the Cotton Forecast Improvement Sub-Committee and the Indian Central Cotton Committee approved the proposed scheme with minor modifications, the question of suitable specific names for the sub-classes under "Oomras" being left to be decided in consultation with the Directors of Agriculture of Bombay, Hyderabad and Central Provinces. This was done in consultation with those officers and the East India Cotton Association, and the classification was sent to the Director-General of Commercial Intelligence and Statistics in July 1934.

4. In the meanwhile, in answer to an enquiry made regarding the classification of S. M. C. States and Satara *Jagirs* under "Westerns" and "Coompta and Uplands" in the new classification, the Director of Agriculture, Bombay, put forward a classification for the cottons grown in the Southern Division of the Presidency, which was slightly different from the one already approved. This proposal was considered at the August 1934 meeting, and it was left to Dr. Burns to discuss the matter with Mr. Haridas Madhavdas and come to an agreement. This was done.

5. In November 1934, this office sent to the East India Cotton Association an exact delimitation of the areas according to the accepted Revised Scheme of Classification. The East India Cotton Association carefully examined it and signified their approval on the 28th March 1935 subject to a few minor changes. The Revised Scheme of Trade Classification as finally approved and sent to the Director-General of Commercial Intelligence and Statistics in April 1935 is given in Enclosure I.

6. The Director-General has since been referring the new scheme to the respective forecast authorities in the provinces and States for criticism or ratification, and to say whether it would be possible to supply figures for the last ten years on the new basis. The objections so far received in answer to this enquiry are the following :—

Punjab.—(Items I (2) and II (2) in the Revised Scheme).

7. As there is no change in the existing classification, the Director-General asked only for the exact delimitations of the *Deshi* and *American* varieties by districts and talukas. The Director of Agriculture has accordingly furnished a statement showing the acreage during 1934-35 under American and *Deshi* cottons in each of the districts included in the four cotton growing zones of the Punjab. So far as British Punjab and Punjab States are concerned, there exists, therefore, no difficulty in making an exact delimitation.

North-West Frontier Province.—(Item I (2) in the Revised Scheme).

8. In this case the Director-General wanted to know whether the change from the existing trade name "Bengal-Sind Sind-Punjab" to the proposed name "Bengals-Punjab *Deshi*" was acceptable. In reply, the Revenue and Divisional Commissioner, North-West Frontier Province, has replied that the proposed trade name seems suitable. He has, however, forwarded a representation from a leading cotton merchant in Peshawar requesting that Peshawar cotton should be classed as "Oomras," and allowed to be tendered against Oomras Contract "or at the most Rs. 10 per *candy* below the Oomras standard." This is a matter for the cotton trade and, if approved, this representation may be brought to the notice of the East India Cotton Association without any comment from the Committee. No change is necessary in the Revised Scheme.

Sind.—(Items I (3) and II (1) in the Revised Scheme).

9 As in the case of the Punjab, the Director-General asked for an exact delimitation of *deshi* and *Americans*, and whether the latter was being grown in Khairpur State. The Chief Agricultural Officer has since furnished the necessary information

Central Provinces and Berar.—(Items III (1) to (6) in the Revised Scheme.)

10 The Economic Bot[illegible]
crop under C P, Berar,
Oomras crops of these tra
which forms the bulk of
thus depress the prices f
with this view so far as C P and Berar Verums are concerned. As regards Nimar Verum he considers that it should be shown separately since the bulk of the so called Nimar Verum is Buri mixed with Verum and Oomras. The Director, Land Records, has agreed to supply information regarding the exact territorial division by districts and talukas if the point raised in the Director of Agriculture's letter is settled Figures for the past ten years cannot be supplied.

11 The point raised by the Director of Agriculture is for consideration [illegible]

Hyderabad.—(Items III (10), II, IX (2), IX (4) (part) and IX (6) (part) in the Revised Scheme)

12 The only doubtful point in this classification is whether it is absolutely necessary that item IX (2) should be shown separately from item IX (1). The East India Cotton Association is not at all particular about it, and they simply agreed to it because the Director of Agriculture, Hyderabad, wanted it. To the Director-General of Commercial Intelligence and Statistics' enquiry, the Director of Statistics, Hyderabad State, has now confirmed the Director of Agriculture's views, on the ground that Raichur-Kumpta and Upland " is superior to the common Kumpta and Upland "

13 The Director of Statistics appears to be [illegible]
Item IX (1) [illegible]
and Gadag [illegible]
Upland would
Had there be
Presidency
ordin
reason [illegible] have been
necess [illegible] a separate item IX (2) is

Baroda.—(Items VI (part), VII (part), VIII (1) (part), VIII (2) (part), VIII (3) (part), VIII (4) (part) in the Revised Scheme).

14. It is very satisfactory to note that [illegible]
simplified the [illegible]
under it
former
India C
under t

Central India.—(Items I (1) (part), V (1) and (2) in the Revised Scheme)

15. The Director-General [illegible]
in Central India to
classification, and al
report "Malvi" sepa[illegible] whether it would be possible to [illegible] the above [illegible] in their forecasts. The replies received so far are as follows —

16 *Dhar*.—The proposed classification is inadequate and requests that Cambodia, Banilla and American cottons grown in the State should be shown separately from Malvi deshi and Nimar deshi There does not seem to be any objection to the Darbar furnishing these figures separately in Dhar forecasts. These details can, however, be omitted from the All-India forecasts, as separate

figures for Dhar State are not at present shown in them. Dhar State produces only just over 10,000 bales, and what is at most required is a foot-note to "Central India—Others" as follows :—

"Includes......bales of *Cambodia* grown in Dhar State" provided the production of Cambodia is more than 1,000 bales.

17. *Jaora* grows only "Malvi" cotton. No objection to the proposed classification.

18. *Ratlam.*—No objection to the proposed classification.

19. *Sitamau.*—No objection to the proposed classification even though there will be practical difficulties in giving effect to it.

20. *Sailana.*—No objection but would like to have instructions regarding identification of the two varieties.

21. *Jhabua* grows "Malvi," "Boda" and "Gujerati." No objection to the proposed classification.

22. *Barwani* grows no Malvi cotton at present. No objection to the proposed classification.

23. *Alirajpur* grows "Nimadi" and "Gujerathi" cotton, for which figures can be reported separately.

24. *Piploda.*—No objection to the proposal.

25. *Jobat grows no* "*Malvi*" *cotton.* No objection to showing under "Central India—Others" the "*Berar*" *cotton grown in the State.*

26. *Nimkhera* very rarely grows "Malvi" cotton. No objection to the proposal.

27. *Jamnia and Rewa.*—No objection to the proposal.

28. *Khanua.*—No objection to the proposal.

Rajputana.—(Item I (4) in the Revised Scheme).

29. The Director, Institute of Plant Industry, Indore, has written to say that in addition to the Central India States such Rajputana States as Tonk, Jhalawar and Partabgarh, a considerable part of whose territory lies within the boundaries of Malva proper should also be allowed to report "Malvi" cotton. The Dewan, Partabgarh State, has also vehemently protested against the inclusion of Partabgarh cotton under "Bengals-Rajputana" simply because that State happens to be included in the Rajputana Agency for administrative reasons. Partabgarh, however, grows very little cotton, the total yield being less than 2,000 bales. There is no press, and the cotton grown in Partabgarh would naturally be taken to Mandsaur in Gwalior State which is close to it, and which is a tenderable station under "Central India." As regards Tonk, the Durbar intimate that the Parganas of Sironj, Chhabra, Pirawa and Nimbahera, which are situated in Central India adjoining Gwalior should be transferred to the class "Central India." The trade may not object to the transfer of the first three as they are almost within the Central India area. As Nimbahera is a tenderable station under "Rajputana," the proposed transfer may not be agreeable to the trade. Alwar, Dholpur, Kishangarh, Shahpura and Sirohi Durbars have no objection to the proposal. It is for consideration whether the question of the transfer of Tonk, Partabgarh and Jhalawar to Central India may be referred to the East India Cotton Association.

30. From the foregoing paragraphs it will be seen that so far as the replies received to the enquiry of the Director-General of Commercial Intelligence and Statistics are concerned, the Revised Scheme does not require much change.

Crop Atlas of India—Varietal Cotton Map.

31. This Atlas is now under preparation, but in view of the fact that the Revised Scheme of Trade classification of cotton has not yet been approved of by all Provinces and States, the Commercial Intelligence and Statistics Department has, it appears, suggested that the Varietal Cotton Map might be dropped and the publication of the Atlas, which has been held up, might be expedited without this map. Sir Bryce, on the other hand, considers that such a contingency should be avoided, if possible, and that pending complete agreement of all concerned on the proposals contained in the Revised Scheme, and the collection of necessary statistics for past years, a provisional map should be put in. This suggestion is now for consideration.

32 In the last edition of the map the following major classes or groups are shown separately :—

(1) Oomras, (2) Dholleras, (3) Coompta-Dharwar, (4) Broach, (5) Bengal-Sind, (6) Westerns and Northerns, (7) Cocanadas, (8) Salems including Cambodias, (9) Tinnevellys including also Cambodias, (10) Comillas, Burmas and others and (11) the districts growing Punjab-American.

This means that the sub classes, viz., Khandesh, Central India, Berar, United Provinces, Rajputana, etc, of Oomras and Bengals are not demarcated in the map, even though the existing trade classification, on the basis of which the map has been prepared, contains these sub-classes. For some of these the trade name of cotton in the classification exactly corresponds with the civil division of the same name, for example, Berar, Central Provinces, Central India, United Provinces There are, however, others for which there is no such correspondence, for example, Khandesh, Barsi-Nagar, "others"

33. The practical difficulties in immediately preparing a varietal cotton map on the basis of the Revised Scheme of classification and on the lines of the latest map may now be considered with reference to each item in the Revised Scheme.

I BENGALS

34 The Punjab, North-West Frontier Province and Sind have already intimated their acceptance of the Revised Scheme. Delhi, Bihar and Orissa,

have all along been tenderable only against the B

States a suggestion has be

heme, as the present proposals do not

35 In the circumstances, if a decision can now be taken regarding Partabgarh, Tonk and Jhalawar, there should be no difficulty in showing Bengals as one variety under one colour in the new map. Back statistics are available for all the unit areas of this class.

36. As to the representation of the four sub-classes under Bengals, it may be done by printing the sub-class names in distinctive type in their respective areas demarcated by bold black lines

II AMERICANS.

37 Both Sind and the Punjab are agreeable to the proposal and have furnished the necessary information As Americans and Bengals are grown in the same districts, it follows that in a coloured map it is not possible to show Americans by another colour against a background of Bengals represented by a particular colour. This may, however, be done by hatching the American-growing tract with *slanting parallel lines*

III. OOMRAS.

38. As in the existing map, Oomras can be treated as one variety under one colour in the new map So far as the Central Provinces and Berar are concerned the objection raised by the Director of A

affect the varietal cotton map

should be indicated separately

Oomras background. The Dire

the necessary data. has also agreed to furnish

39. As regards Khandesh Oomras, the Director of Agriculture Bombay Presidency, may not have objection to the

not yet

40. It is not clear whether any difficulty is likely to be met with in the case of Barsi-Nagar Oomras area. Statistics for Ahmednagar, Poona, and Sholapur districts should be readily available for back years. As regards Atpadi Mahal of Aundh State and Manpeta of Satara District it should not be very difficult to make an estimate for back years on the basis of present figures. Since the areas concerned are comparatively small, the validity of the varietal cotton map will not in any way be affected by such estimates.

41. The proposal regarding Hyderabad Oomras is acceptable to Hyderabad authorities and if estimated figures are used for small areas for which back statistics are not available it is hoped there would be no difficulty with regard to Hyderabad Oomras.

42. The sub-classes Berar, C.P., Nimar, Khandesh, Barsi-Nagar, and Hyderabad Oomras can be indicated as suggested in paragraph 36 above.

IV. Hyderabad Gaorani.

43. Hyderabad Gaorani is not shown separately in the existing map, for the reason that Hyderabad Gaorani is classed under "Oomras" in the existing trade classification. Now that it has been decided to treat this crop as a class by itself in the Revised Scheme, it is for consideration whether it may also be shown in the new map by a separate colour. This is quite possible as the area growing Gaorani is well defined since it is the same as the Gaorani Protected Area.

V. Central India.

44. Like Hyderabad Gaorani, Central India is treated as a separate class in the Revised Scheme. This crop may therefore be shown in the new map also by a separate colour.

45. Subject to the decision on the points referred to in paragraphs 16 and 29, the area is well defined, and there is no difficulty with regard to back statistics for "Central India" as a whole.

46. The next point for consideration is whether it is necessary to indicate "Malvi" growing areas in Central India. If so, this can be done by *black square blocks* on Central India background.

VI. Broach and VII. Surti.

47. In the existing classification Broach and Surti form one class and consequently in the existing map both areas have the same colour. Pending the receipt of the views, on the Revised Scheme, of the Director of Agriculture, Bombay Presidency, and the States concerned, the Revised Scheme may be taken as the basis for the new varietal map, and in accordance with the general principle hitherto adopted Broach and Surti may be shown separately by two different colours. Both areas are well defined, and there should not be any difficulty in getting back statistics for these areas.

VIII. Dholleras.

48. In the existing classification Dholleras has no sub-divisions, but in the Revised Scheme Dholleras crop is further classified under five heads. Except for the omission from the Revised Scheme of a few talukas of Kaira district, there is no change between the old and new classifications. There should therefore be no difficulty in showing the whole Dholleras area under one colour in the new map.

49. The next question to be considered is whether any indication should be made regarding the five sub-divisions. As a matter of fact these five sub-divisions mean only three distinct territorial divisions, viz., Cutch, Gujerat and Kathiawar. So, if the boundaries of these areas are demarcated as suggested in paragraph 36 the three sub-divisions can easily be represented in the one-colour area of Dholleras. As to the "Short-staple" grown in Gujerat and Kathiawar, it can be indicated by black crosses in those States and talukas where it is grown.

IX. Southerns.

50. There is no corresponding trade name in the existing classification, but the tract defined in the Revised Scheme as growing Southerns roughly corresponds with the Coompta-Dharwar, Northerns and Westerns, Coconadas and "Others" (Madras) tracts of the existing classification and varietal map. The main class Southerns may therefore be represented by one colour.

51 There are seven sub-divisions under Southerns in the Revised Scheme. If the suggestions made in paragraph 13 is accepted, sub-division (2) will be merged in sub division (1) and there will remain only six sub-divisions, which are well defined areas and can be demarcated as suggested in paragraph 28. Though not stated in the Revised Scheme, Hassan, Shimoga, Kadur and Chitaldrug are the only districts in Mysore State which grow Kumpta and Uplands.

X TINNEVELLIES (INCLUDING KARUNGANNIS).

XI. CAMBODIAS.

XII SALEMS.

52 In the existing classification all these three varieties are shown separately and hence no change has been made in the Revised Scheme. In the existing varietal map, however, the grouping adopted is (1) Salems including Cambodias and (2) Tinnevellies including also Cambodias. [illegible] Cambodia being the more widely grown [illegible] Madura, Ramnad, Tinnevelly, Salem, Coimbatore, North and South Arcot and Trichinopoly districts, may be shown by a colour, and Tinnevellies (including Karunganni) by horizontal lines, and Salems by vertical lines. [illegible] Mysore and Tumkur districts of Mysore State which grow a little of Cambodia and Salems and no other variety will be coloured for Cambodia and hatched. This change is suggested on account of the growing importance of Cambodia and the fact that though the area under Karunganni in Coimbatore district is about [illegible] lakh acres the present method of representation does not bring out that fact.

XIII. COMILLAS.

XIV. BURMAS.

53. In the existing classification these were [illegible] and are accordingly represented in the map by one colour. As they have been separated in the Revised Scheme, they may be shown in the map [illegible] different colours. There does not appear to be any need to show [illegible] "Wagyi" [illegible] and "Wagyi" [illegible]

[illegible]

54. In the existing map the importance of a [illegible] district is indicated by colouring it with a light, medium or deep shade of the same colour according as the cotton area in the district is [illegible] acres, [illegible] to 500,000 acres or above 500,000 acres. It is for consideration whether the same method should be adopted in the new map.

[illegible]

55. The Revised Scheme of Trade classification of cottons as finally approved by the Trade and the Indian Central Cotton Committee given in Enclosure I is now being examined by [illegible]. Of the [illegible] received so far, those regarding [illegible] (paragraph [illegible]), Hyderabad (paragraph 13), Dhar (paragraph [illegible]), [illegible] and Tonk (paragraph 24) alone require examination. [illegible] of replies from the rest, the preparation of a [illegible] varietal cotton map on the basis of the Revised Scheme can [illegible] be taken up. It is suggested that in such a map—

(1) cotton-growing areas of India [illegible] into tracts growing [illegible] cottons broadly classed under Bengals, [illegible], Central India, Broach, Surti, [illegible], Comptas, [illegible] and Burmas, each being represented by a [illegible] colour, and shaded, if necessary, to show the extent of [illegible].

(2) sub-classes of the cottons [illegible] need only be demarcated by boundaries and names, and

(3) on the [illegible] the above cottons, varieties such as [illegible], Malvi, Sh[illegible] Sa[illegible] Tinnevellys grown in the same tracts sh[illegible] super imposition of lines, [illegible], etc. dot or circle may, if necessary, be made [illegible] of area, as well.

40. It is not clear whether any difficulty is likely to be met with in the case of Barsi-Nagar Oomras area. Statistics for Ahmednagar, Poona, and Sholapur districts should be readily available for back years. As regards Atpadi Mahal of Aundh State and Manpota of Satara District it should not be very difficult to make an estimate for back years on the basis of present figures. Since the areas concerned are comparatively small, the validity of the varietal cotton map will not in any way be affected by such estimates.

41. The proposal regarding Hyderabad Oomras is acceptable to Hyderabad authorities and if estimated figures are used for small areas for which back statistics are not available it is hoped there would be no difficulty with regard to Hyderabad Oomras.

42. The sub-classes Berar, C.P., Nimar, Khandesh, Barsi-Nagar, and Hyderabad Oomras can be indicated as suggested in paragraph 36 above.

IV. HYDERABAD GAORANI.

43. Hyderabad Gaorani is not shown separately in the existing map, for the reason that Hyderabad Gaorani is classed under "Oomras" in the existing trade classification. Now that it has been decided to treat this crop as a class by itself in the Revised Scheme, it is for consideration whether it may also be shown in the new map by a separate colour. This is quite possible as the area growing Gaorani is well defined since it is the same as the Gaorani Protected Area.

V. CENTRAL INDIA.

44. Like Hyderabad Gaorani, Central India is treated as a separate class in the Revised Scheme. This crop may therefore be shown in the new map also by a separate colour.

45. Subject to the decision on the points referred to in paragraphs 16 and 29, the area is well defined, and there is no difficulty with regard to back statistics for "Central India" as a whole.

46. The next point for consideration is whether it is necessary to indicate "Malvi" growing areas in Central India. If so, this can be done by black square blocks on Central India background.

VI. BROACH AND VII. SURTI.

47. In the existing classification Broach and Surti form one class and consequently in the existing map both areas have the same colour. Pending the receipt of the views, on the Revised Scheme, of the Director of Agriculture, Bombay Presidency, and the States concerned, the Revised Scheme may be taken as the basis for the new varietal map, and in accordance with the general principle hitherto adopted Broach and Surti may be shown separately by two different colours. Both areas are well defined, and there should not be any difficulty in getting back statistics for these areas.

VIII. DHOLLERAS.

48. In the existing classification Dholleras has no sub-divisions, but in the Revised Scheme Dholleras crop is further classified under five heads. Except for the omission from the Revised Scheme of a few talukas of Kaira district, there is no change between the old and new classifications. There should therefore be no difficulty in showing the whole Dholleras area under one colour in the new map.

49. The next question to be considered is whether any indication should be made regarding the five sub-divisions. As a matter of fact these five sub-divisions mean only three distinct territorial divisions, viz., Cutch, Gujerat and Kathiawar. So, if the boundaries of these areas are demarcated as suggested in paragraph 36 the three sub-divisions can easily be represented in the one-colour area of Dholleras. As to the "Short-staple" grown in Gujerat and Kathiawar, it can be indicated by black crosses in those States and talukas where it is grown.

IX. SOUTHERNS.

50. There is no corresponding trade name in the existing classification, but the tract defined in the Revised Scheme as growing Southerns roughly corresponds with the Coompta-Dharwar, Northerns and Westerns, Coconadas and "Others" (Madras) tracts of the existing classification and varietal map. The main class Southerns may therefore be represented by one colour.

51 There are seven sub-divisions under Southerns in the Revised Scheme. If the suggestions made in paragraph 13 is accepted sub-division (2) will be merged in sub-division (1) and there will remain only six sub-divisions, which are well defined areas and can be demarcated as suggested in paragraph 36. Though not stated in the Revised Scheme, Hassan, Shimoga, Kadur and Chitaldrug are the only districts in Mysore State which grow Kumpta and Upland

X. Tinnevellies (including Karunganni).

XI. Cambodias.

XII. Salems.

52. *In the existing* classification all these three varieties are shown separately and hence no change has been made in the Revised Scheme. In the existing varietal map, however, the grouping adopted is (1) Salems including Cambodias and (2) Tinnevellies including also Cambodias. If there is no objection, Cambodia, being the more widely grown cotton, that is, in Madura, Ramnad, Tinnevelly, Salem, Coimbatore, North and South Arcot and Trichinopoly districts, may be shown by a colour, and Tinnevellies including Karunganni by horizontal lines, and Salems by vertical lines. If this is done Mysore and Tumkur districts of Mysore State which grow a little of Cambodia and Salems and no other variety will be coloured for Cambodia and hatched. This change is suggested on account of the growing importance of Cambodia and the fact that though the area under Karunganni in Coimbatore district is about [illegible] lakh acres the present method of representation does not bring out that fact.

XIII. Comillas.

XIV. Burmas.

53 In the existing classification these with "others" form one class and are accordingly represented in the map by one colour. As they have been separated in the Revised Scheme, they may be shown in the map also separately in different colours. There does not appear to be any need to show the subset [illegible] "T[illegible]" and "Wagyi," but there should be no objection to doing so [illegible] possible.

Density

54 In the existing map, the importance of a district as a cotton growing district is indicated by colouring it with a light, medium or heavy shade of the same colour according as the cotton area in the district is [illegible] to [illegible] acres, [illegible] to 500,000 acres or above [illegible] acres. It is for consideration whether the same method should be adopted in the new map.

Summary.

55. The Revised S[illegible]
by [illegible] of cotton as finally approved
now [illegible] cottons grown in [illegible]
so fa[illegible] of the [illegible]
Dha[illegible] first paragraph [illegible]
requ[illegible] of [illegible]
[illegible] subject to a decision on these and [illegible] from the rest, the preparation of a provisional varietal cotton map on the basis of the Revised Scheme can immediately be taken up. It is proposed that on such a map—

(1) cotton growing areas of India should be divided into [illegible] indigenous or ordinary local or the more important [illegible] classified under Bengals, Oomras, Garrauts, Central India, [illegible], Surti, Dholleras, Southerns, Cambodia, Comillas and Burmas, each being represented by a distinctive colour, and shaded, if necessary, to show the extent of cultivation,

(2) sub-classes of the cottons mentioned in (1) need only be demarcated by boundaries and named, and

(3) on the respective backgrounds provided by the above colours, varieties such as Americans, Verum, Banilla, Malvi, [illegible], [illegible] and Tinnevellys grown in the same tracts should be indicated by the super-imposition of lines, dots, circles, etc. In doing so, each line or dot or circle may, if necessary, be made to represent a particular extent of area, as well.

A communication has since been received from the Director-General intimating the acceptance of the Revised Scheme by the Banswara State of Rajputana. Mewar State of Rajputana, however, objects to being included under "Bengals-Rajputana *deshi*" on the ground that Mewar cotton is, though not equal to Oomras, comparatively superior to Bengals on account of the introduction of Cawnpore-American No. 9 cotton into the State. The State therefore requests that "Mewari Oomras" be shown as a separate item under "III-Oomras." It might be mentioned that the State made a similar request in 1933 to the Trade Classification Sub-Committee referred to in paragraph 1, and that Sub-Committee did not accede to it.

P. H. Rama Reddi.

ENCLOSURE I.

Revised Scheme of Trade Classification of Indian Cotton.

Trade Descriptions.	*Tracts to be included.*
I. Bengals—	
(1) U. P. *Deshi* ..	.. United Provinces (including Rampur State), Delhi, Bihar and Orissa, Baghelkhand and Bundelkhand agencies of Central India, and Western Bengal (Bankura and Midnapore districts).
(2) Punjab *Deshi* ..	.. Punjab (including Indian States except Khairpur State) and North-West Frontier Province.
(3) Sind *Deshi*	.. Sind (including Khairpur State).
(4) Rajputana *Deshi* ..	.. Ajmer-Merwara and Rajputana States (excluding Palanpur State).
II. Americans—	
(1) Sind-American ..	.. Sind.
(2) Punjab-American ..	.. Punjab.
III. Oomras—	
(1) Berar Oomras ..	.. Berar.
(2) C. P. Oomras ..	.. Central Provinces (excluding Nimar district).
(3) Nimar Oomras ..	.. Nimar district of Central Provinces.
(4) Berar Verum ..	.. Berar.
(5) C. P. Verum ..	.. Central Provinces (excluding Nimar district).
(6) Nimar Verum ..	.. Nimar district of Central Provinces.
(7) Khandesh Oomras	.. Nasik, East Khandesh and West Khandesh (excluding Nawapur Taluka) districts.
(8) Khandesh Banilla	.. East and West Khandesh districts.
(9) Barsi-Nagar Oomras	.. Ahmednagar, Poona and Sholapur districts; Phaltan State; Atpadi Mahal of Aundh State; and Manpeta of Satara district.
(10) Hyderabad Oomras	.. Aurangabad, Bir (excluding Mominabad Taluka), Parbhani, Adilabad (excluding Nirmal Taluka), Osmanabad (excluding portion included under "Hyderabad Gaorani") and Nizamabad districts; Akalkot State.
IV. Hyderabad-Gaorani ..	.. The Hyderabad-Gaorani Protected Area of Hyderabad State comprising Nanded, Bidar and part of Osmanabad districts; Nirmal and Mominabad Talukas.
V. Central India.—	
(1) Malvi	Gwalior, Indore and States in Bhopal, Malwa and Southern States Agencies.
(2) Central India—Others ..	(bracketed with (1))

Trade Description.	[illegible]
VI Broach	[illegible]
VII Surat	[illegible] State [illegible]
VIII. D[illegible]—	
(1) Gujerat-Dholleras	[illegible]
(2) Gujerat—Short staple	[illegible]
(3) Kathiawar—Dholleras	[illegible]
(4) Kathiawar—Short staple	[illegible]
(5) Cutch	Cutch State
IX. S[illegible]—	
(1) [illegible] and [illegible]	[illegible] State.
(2) [illegible] and [illegible]	[illegible]
(3) [illegible] and [illegible]	[illegible]
(4) Westerns	[illegible]
(5) White and Red Northerns	[illegible]
(6) Warangal and Coconadas	[illegible] districts.
(7) Chinnapathi (short-staple)	[illegible] and [illegible] districts
X Tinnevellies (including Karungannies)	North Arcot, South Arcot, [illegible] Salem, Trichinopoly [illegible] kottai), Madura, Ramnad and Tinnevelly districts. Mysore State
XI Cambodias	
XII Salems	
XIII Comillas	Assam (whole) and Eastern Bengal [illegible] singh, Chittagong Hill Tracts and Tipperah State)
XIV Burmas—	
(1) Wagale	Burma
(2) Wagyi	